Addendum to the Caesar Manual

(Please Read Me First)

These instructions replace the install instructions found on pages 6-7 of the Caesar manual. All other instructions in the Caesar manual are correct and valid.

Times certainly have changed since 1993. In that simpler time, DOS-based games were king. Now, we live in a Windows world, and some of the install instructions in the Caesar manual are now obsolete. Please follow these instructions instead:

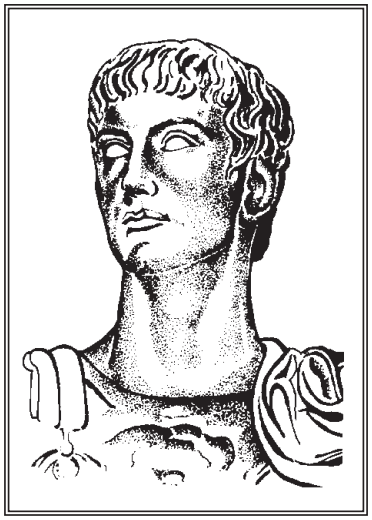
First, Windows 95/98 users will need to determine their Input/Output (I/O) and Interrupt Request (IRQ) settings by following these directions:

1. Go to Start ⟶ Settings ⟶ Control Panel
2. Double click on "System," and select the Device Manager tab.
3. Double click on "Sound, Video & Game Controllers."
4. From the list that appears, click on your sound card, then click on "Properties."
5. Click on the "Resources" tab that appears after you click on "Properties." You will see one setting for your IRQ and three settings for your I/O. Copy these down. You'll need them later.

Now, download the zip files that contain the Caesar files to your hard drive (if you haven't already). Unzip the files using WinZip or PKZip. Then, follow these instructions:

1. Go to Start ⟶ Programs ⟶ MS-DOS Prompt.
2. Change the DOS prompt to the directory and folder into which you unzipped the Caesar files.
3. Type "Install" and follow the directions.
4. After installation, type "setup" (the prompt should still show your Caesar directory).
5. During the set up, select the *SoundBlaster* card and then select "Enter New Jumper Settings." You will be asked to choose an Interrupt Request (IRQ) setting from a list. Choose the setting that matches the one you copied down. You will then be asked to input your Input/Output (I/O) settings. One of these numbers should match one of the I/O settings you identified. Choose it, and your computer will return to the DOS prompt if you've successfully completed the set up.
6. If *SoundBlaster* does not work, try choosing *Adlib* instead and then following the rest of the directions in step 5. If that doesn't work, choose "No Sound Card." You'll still be able to play the game, but you won't have any sound.
7. Now type "csr" at the prompt to start the game.
8. Enjoy!

PLEASE NOTE: This program is unsupported. Neither Impressions nor Sierra On-Line will be providing customer service or technical support for this title. On the other hand, you did get it for free.



CAESAR

Thank you for buying this product. It is the result of a great deal of hard work and careful thought, and we hope that it will give you many hours of enjoyment.

We are proud of our games, but we know that they can never be perfect. If you have any ideas about how we can improve, we would be delighted to hear from you. Please take the time to fill out the enclosed registration card. We can then add you to our mailing list, and keep you informed of new products and special offers as they come out.

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Impressions

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***Please See the Addendum to this manual for installation instructions.**

INTRODUCTION

Welcome to the grandeur and glory of Imperial Rome! It is the first century BC, and the republic has just fallen to the first Emperor, Caesar Augustus. Positions of power change hands as the would-be masters of the Empire rise and fall in the Emperor's favor.

You are one such ambitious public figure. Through patient skill and hard-nosed dealing, you have managed to secure the Governorship of a province of the Roman Empire. If you can turn the undeveloped backwater into a secure and prosperous home for its citizens, you will rise in rank, and in the Emperor's esteem. And if you can repeat that success throughout your career, anything is possible — perhaps even the title of Emperor itself — the title Caesar!

ABOUT CAESAR

In Caesar, your job is to govern your province as efficiently as possible. Much of your time will be spent in **designing and building** the capital city of your Province. Housing, water-supply, industry and many other factors will have to be balanced to produce a successful city. Here are some things you should know:

CITY LEVEL AND PROVINCIAL LEVEL — Your domain is represented in two ways. At **city level**, every building and structure of your city is viewable and controllable through a scrolling window. Here you design your capital city, choosing which buildings and structures to build and where to build them. At **provincial level**, the entire city is represented by a single symbol, located on the lands of the province. Here you watch and maintain the outer defense of your city, and create routes of trade between the capital city and the surrounding smaller towns.

An important aspect of **Caesar** is that the city level and provincial level can progress and change **at the same time**; you must keep a close eye on both of them.

MAINTENANCE AND ADMINISTRATION — As you develop the city, you must maintain it by assigning Plebians (or "Plebs") to various duties. Additionally, in order to make any financial gains from your city, you must set tax rates and consult often with your administrative advisors.

DEFENDING THE PROVINCE — Your citizens live in anything but an ideal, insulated world. Within the Imperial frontiers lie **barbarians** of many tribes, constantly trying the Empire's defenses. And if life under your rule is miserable or harsh, you could also have to face opposition from **rioters** within your city walls. You must keep your province and capital city well-defended, using a variety of active and passive defenses: at provincial level, the military power of **forts**; at city level, local peacekeepers based in **barracks**; and an array of **walls and towers** available at both levels.

MONEY — This is a key concern in **Caesar**. If you run out of money, you will not be able to build things, maintain them, support a workforce or keep a standing army. All expenditure is measured in Denarii - the Denarius being the basic unit of Imperial Roman currency.

OBJECTIVES — Your objective in **Caesar** is to govern your province sufficiently well that you receive a **promotion**. If promoted, you will be given control of a new region where standards must be higher. You start the game with the title of Decurian, one level above the citizens of your province. With enough successes, you could eventually rise to the rank of Emperor yourself.

Your performance as Governor is rated in four categories; **peace** (the security of the province and its capital city), **culture** (the quality of life in your capital city), **prosperity** (the size, quality and stability of your city) and **empire** (Imperial influence across the lands of the province). Your advisors in the **Forum** will keep you abreast of what your current ratings are, and what they must be to be promoted.

HOW THE GAME ENDS — If you govern well, the game continues through promotion after promotion, until you win the game with the rank of Caesar. If you govern poorly and miss three annual tributes to Rome in a row, you will be stripped of your titles and, quite possibly, executed. Needless to say, this ends the game!

INSTALLING & RUNNING CAESAR

Please See Addendum

THESE INSTRUCTIONS ARE INVALID. PLEASE CONSULT THE ADDENDUM AT THE BEGINNING OF THIS MANUAL.

IBM PC - Installation and Loading

Caesar **cannot** be run from a floppy drive - it must be installed to a hard disk. When fully installed, it will take up about **2.5** megabytes of hard drive space.

Hard Drive Installation

First, switch on the computer. If WINDOWS, DOSSHELL or other menu programs appear automatically when you turn on your computer, you should exit them now.

In either case, you should now be at the DOS prompt, where you can enter commands. The prompt should look something like either "**A:\>**" or "**C:\>**". Insert Disk 1 into a floppy drive, and type

A: <ENTER>

or

B: <ENTER>

— to access whichever drive the disk is in.

Then, type

INSTALL <ENTER>

and the installation program should begin. Follow the on-screen instructions — the process is self-explanatory. Soundcard support, and the directory pathname where you wish to install **Caesar** are selected at this time. When completed, the program should be ready to be run from the hard drive.

Sound, Music and Soundcard Support

During the installation program, you will be prompted to select an option for producing sound effects. If you own an AdLib or SoundBlaster-compatible card, you will hear music and digitized sound effects.

If you later install a different kind of soundcard in your computer, you must run the INSTALL program from the hard drive. This will only change the configuration settings for the game; you do not have to copy any files over from the original disks.

Playing from the Hard Drive

If you do not still have the computer on, do so now, and get to the DOS prompt as described above. From the DOS prompt, type

C: <ENTER>

or

D: <ENTER>

or even **E:**, if necessary, to access the hard drive where you installed Caesar. Then, type

CD\CAESAR <ENTER>

to select the directory which contains Caesar. (If you have changed the name of this directory, then replace **CAESAR** with that new name.) Then type

CAESAR <ENTER>

to play the game.

Start Options

Upon running the game, you are presented with a panel of options. The choices available here are:

Initial Funding — This limits the amount of money you have when starting your first province. The game becomes much harder when you are short on cash; when you cannot afford to destroy and rebuild after a mistake, each building and plan must be chosen with greater care. Click on the two arrow buttons to raise or lower your initial funding, which can be as high as 8,000 Denarii or as low as 500 Dn.

Skill Level — This sets the game's difficulty to one of three levels: Easy, Medium and Hard. A harder game increases the number of plebs you need to maintain the city, increases the frequency of barbarian attacks and shortens the number of years you have as "grace," before barbarians start to attack.

Choose Name — Your Governor can be personalized with this command. Clicking on this button displays a new panel; either click on the up and down arrows to change the letters in your name, or type in a new name with the keyboard. The cursor (a small line under one of the letters) can be moved by either using the left and right arrow keys, or by clicking the mouse on one of the letters. Simple text editing can be done with the Backspace and Delete keys. Click anywhere with the right button to exit the panel.

Load a Game — If you wish to resume a game you started earlier, you can use this option to load it immediately. Clicking on this button displays the Load Game panel; a filename can be selected by using the procedures explained in **Choose Name**, above, or by clicking on a filename in the directory window at the bottom of the panel. Once you have selected a filename, click on "OK" to load it or "Cancel Disk Operation" to cancel.

OK — Click here to begin a new game with the options chosen.

Your First Province

When the game starts, you will be presented with a map of Europe. The Emperor chooses a Province for you to govern. Above it will be a *standard*, which is the Roman equivalent of a flag. Observe the shape of the province, as that will be represented on the Provincial level of the game. You will be able to view this map at any time from **the Forum**. After a few moments, you will be sent to the

City level, where you can begin to build your capital city. Good luck!

Keyboard Commands

Caesar can be controlled entirely through the keyboard; however, we recommend using a mouse. Most commands are reached through the keyboard by *simulating* the mouse; the cursor keys move the mouse pointer, while the semicolon (**;**) key acts the left mouse button and the <ENTER> key acts as the right button.

In addition to simulating the mouse, the following "hot-keys" have been added to speed gameplay for both mouse and keyboard users. These hot-keys are accessible from the City Level and Provincial Level displays. **Note:** Do not use the toolbar hot-keys while the mouse pointer is over the toolbar.

View Selection

F1	Map of Empire
F2	Province Level
F3	City Level

Toolbar Selection

1	Main City Level Toolbar (City Levelonly)
2	Infrastructure Toolbar (City Level only)
3	Construction Toolbar (City Level only)

Pausing the Game

T	Enters scroll mode and pauses the game — right-click the mouse or <ENTER> to unpause

Other Commands

space	Cycle through three City Level toolbars
F	Go to Forum
G	Maps Panel (Graphs)
P	Toggle Position Indicator on/off
R	Administrative Advisor (Ratings)
S	Tribune of the Plebs screen
Alt-X	Exit to DOS

Tutorial

This tutorial will lead you through most of the major concepts of **Caesar**. Your goal in this game is to rule your province and build its capital city so well that you will be promoted into another, more challenging province. You will be judged according to four strict criteria: peace, culture, prosperity and empire. If you follow the steps below, you should be able to get your first province, and especially your first city, off to a good start. More complex portions of the game are covered elsewhere in the manual. You may want to keep your icon card handy.

Starting the Game

First, make sure you have followed the instructions for **Installing and Loading Caesar**. The Impressions logo and a titles sequence for the game should appear after starting the game; click the left mouse button or press the space bar at any time to move through these screens more quickly.

Finally, you will be looking at a panel of options for starting a game. The skill level is already set to the most basic level, and you don't want to load in a previously saved city, so you don't need to change any of these options. Move the mouse pointer over the stone button next to "OK", and click the left-mouse button to start the game.

*(**Note:** These buttons "glow" red when selected; some buttons in the game will stay this way, to show that a particular option is currently in use.)*

Map of the Empire

Upon starting the game, a map of the Empire will appear. It will be divided into a number of **provinces**, each one controlled by a province ruler like yourself. One of them will be marked with a **standard**, which is a symbol used like a modern flag. This is the province you will rule. The computer displays a message as it generates the terrain for this area; after the message disappears, click with the mouse to move on. You will be told your name, title (also known as *rank*), and the name of your province. Click once more to begin your game.

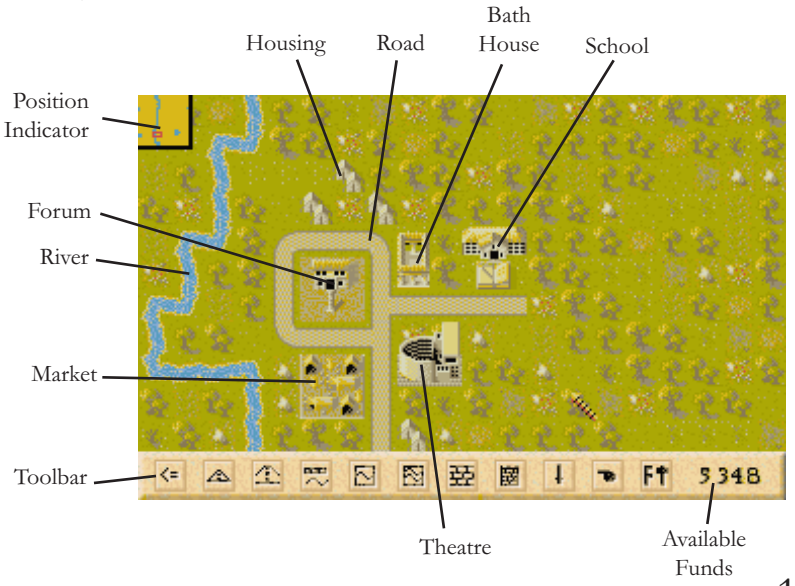
The City Level

The City Level now appears before you; this is where you will build the capital city of your province. Most likely, the screen is filled with nothing but weeds, scrub brush and rocks. There will also be some water here, in the form of rivers or lakes. This area is only one small section of the City level. We'll take a look at the rest of it in a minute.

Right now, the mouse pointer should still be shaped like an arrow. This means that the game is in **command mode**. At the bottom of the screen is a row of icons; this is the **City Level Toolbar**. We'll be using those soon.

Right now, let's try out **scroll mode**. Click the right-hand mouse button, and the mouse pointer will change into an outline of a square. Also, the pointer will jump to a new location towards the center of the screen. You are now in scroll mode; moving the pointer to any edge of the screen will scroll your view of City level in that direction. Try it out and get a good look at the land you rule. Notice how you can't move your pointer onto the toolbar; the view scrolls up when you try do so. Also notice that as you scroll around, the **Position Indicator** in the top-left corner of the screen moves a small red rectangle over a map of the entire city terrain. This rectangle represents the small part of the City Level that you are looking at. When you're done, click the right mouse button to return to command mode.

CITY LEVEL



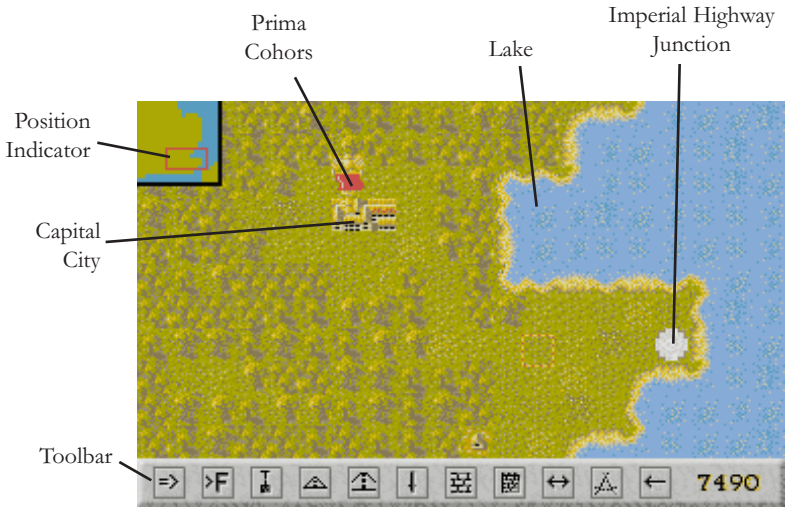
Selecting an Icon

To select an icon while in command mode, point to it with the mouse and click the left mouse button. Let's use this to move to the **Provincial Level**. Click on the first icon on the left — the one with a arrow drawn on it. Notice that the words "Go to Province" appear briefly in the top-right corner of the screen, and disappear as you release the mouse button. The name of an icon appears for as long as you hold the left-button down; if you ever choose the wrong icon, just move the pointer off of it before releasing the button.

The Provincial Level

The screen should change to another area of terrain, with a new toolbar of icons at the bottom. This is the **provincial level**. Change to scroll mode, and look around the province. Remember the Empire map? The shape of your province, as shown there, determines the shape of this terrain. In some cases, your province may only be an island in the middle of this area. This terrain is also shown in the Position Indicator in the upper-left of the screen; the part of it you're looking at is shown by a large red rectangle. (**Note:** The pause command also works on Provincial Level; you may want to use it while you study the province.)

Now, look for some structures on your province. First, find the structure which



PROVINCIAL LEVEL

has a red flag-like item fluttering above it. This is actually three things: the buildings represent your capital city, and the fort defending it. The red flag-like item is called a *battle standard*, which represents a Cohort of Roman soldiers. You'll learn about Cohorts soon.

Next, scroll around the area to find four small huts around the edges of the province. These are **small towns**; while you don't control or build them, they will be important to your province's success. Finally, a find a large gray shape along one of the edges of Province Level; this is your junction with the *Imperial highway* system, a route of trade and culture with the rest of the Empire.

Putting a Cohort on Patrol

Now, before we start building your capital city, let's defend it from barbarian invaders. Your province is assigned one Legion of Roman soldiers, which is divided into Cohorts. Right now, you only have one Cohort, the *Prima Cohors*, so all your soldiers are in it. The eagle atop the battle standard is its symbol; barbarian armies will be represented by their own battle standards. You can command Cohorts using the last three icons of the toolbar: Patrol, Attack and Go Home.

For now, you'll start your Cohort on **patrol**. Make sure you're in command mode first. Then, left-click (click with the left mouse button) on the patrol icon — it's the third icon from the right, with a drawing of a two-headed arrow on it. The pointer will jump to the middle of the screen, and will change into diagonal crosshairs; you're in scroll mode again, as you'll be for any building or Cohort commands. Point to the base of the Cohort and click the left mouse button; if you were pointing in the right place, the pointer will turn blue. If you missed, then the pointer will try to center on the base for you, and will turn blue if it does; in this case, you'll have to click the left mouse button again to confirm. If you missed completely, you may have to move the pointer closer before it centers.

Next, click onto a location on the map, and the Cohort will start heading towards it. Click on a second location, and the Cohort will move into a patrol route between them. You will probably want to choose a route closer to the city, so that the Cohort will be available to defend it from attack. Some kinds of terrain will be obstacles for your Cohort, so you may need to give it new patrol orders; on the other hand, barbarian armies will have just as much trouble reaching your city.

A few points before we move on: First, your legion (and thus your Cohort) is very small right now. You might feel more secure to skip ahead to "**Visiting the Forum Again**" to learn how to gain more men; return here to continue the tutorial. Second, if a message comes up later in the game announcing "Barbarians Sighted", your Cohort should intercept them; meaning that you will be moved to

the Battle Panel. Instructions on operating it can be found in the manual, in the chapter called "**Battle Panel**." Finally, instructions for using the other Cohort commands are also available in the manual, in the chapter titled "**Provincial Level**."

Surveying the City Level

Now, let's return to the city level. First, right-click the mouse to return to command mode; then, click on the arrow icon on the left end of the toolbar to return to City level. Next, we'll take a look at the entire city level at once, to see what's the best place to start your capital city. Click on the **maps panel** icon — it's the fourth icon on the left, with a drawing of a graph on it.

The screen will be replaced by a map display and several options; each option shows a map available on the display. Currently, the map has no options selected, but shows the land shape of the entire City Level. Look for a good location to start your city; it should be a large open space, with access to water sources. When you have chosen one, right-click the mouse to return to City level.

Building a Forum

Each city must have at least one forum; the forum will be the city's administrative center, keeping the peace and collecting taxes over a large area. At the start of the game, it should be at the physical center of the city as well. Click on the icon with a hammer and a letter "I" in it; this is the **infrastructure** icon. A new toolbar should appear; the buildings and structures available from it will form the foundation of your city. The last icon on the right, with a letter "F" and a hammer in it, is the **Build Forum** command; click on it and a panel with eight names will appear. These names represent eight grades of *fora* (the plural of forum); for now, choose the smallest one, the *Aventine*.

The panel will disappear, and you will be in scroll mode again. The mouse pointer has turned into the shape of the Forum you have chosen; its cost is displayed in the corner of the pointer. Scroll your view to where you want the forum to be built, and left-click the mouse to put it there. Note how the *available funds* display, which starts at 10,000 Denarii, has been reduced by the cost of construction. Finally, right-click the mouse to return to command mode; after building, right-clicking always brings you back to command mode.

Ambient Sounds

Now that a forum has been built, you may (if you own a soundcard) hear the sounds of crowds gathered at the forum. Different buildings can be heard from time to time, to give you a sense of the life flowing through your city. These are different from certain **warning sounds**, like fires breaking out and buildings falling down. If you hear these, look for a warning message to appear, telling you what's gone wrong.

Building Roads

Next, you will want to prepare for the placement of housing in your city. Your citizens demand, more than almost anything, that they have access to the forum through the city's road system. So now we'll build those roads.

You'll notice that the infrastructure toolbar is still displayed. Two icons on the left look like roads heading into the distance; left-click on the smaller one, the **Build Roads** command. (Make sure you switched to command mode first.) Now, prepare to build roads all around the forum; point to the space just to the left of the top-left corner of the forum. Then, click **and hold** the left mouse button; a small section of road should appear there. Slowly drag the mouse down the side of the forum, then along the bottom, then up the other side, and finally along the top of the forum to where you started. The road should bend around the curves, and connect with itself at the top-left corner. If you did not make any mistakes, release the button; the road will be built and the costs deducted. Otherwise, press the right button while still holding down the left, then release both — the road will disappear, and you can try again.

Having done this, you can connect other roads to this one, to provide space for houses; remember that citizens like road access to the forum. However, don't build too many roads, or you may find them starting to decay due to lack of maintenance (avoiding road decay is explained later). People will eventually appear, and begin to walk along your roads. These are a good sign of your city's development. (The manual discusses other, more important people that will appear later.) When you're done, return to command mode by right-clicking.

Correcting Mistakes

If you find, after you've confirmed the action, that you've built some roads in the wrong place, you can use the **Clear Area** command to remove them. This com-

mand is available from the main City Level toolbar; left-click on the first icon on the left to return there. Then, left-click on the icon with a drawing of a *shovel* on it; this is the Clear Area icon. You are in scroll mode again; left-click on any road squares you want "erased." You can hold down the left button and "drag" the mouse, but be careful not to destroy your forum. When done, right-click to return to command mode. You can then reselect the infrastructure toolbar, and the build roads icon, to continue what you were doing.

This icon (and a similar one on the Provincial level) can be used to correct any mistakes you make and constructing your city. You will probably be using it often.

Building Housing

Now it's time to build the city up for your future citizens. Left-click on the first icon on the left (the arrow pointing left) to return to the main City level toolbar. Then, click on the icon with a single house on it. You can now build housing in those locations you decided upon by pointing to them and left-clicking the mouse. If you like, you can hold the button down and "paint" the area full of housing; just be careful not to go overboard. Right-click to return to command mode when you're done.

Each "square" of housing starts as a single tent. If there is a need for housing in the city (and seeing as these are the first houses here, there is certainly a need), one tent will soon become *two* tents. With the right conditions, tents may grow into wood houses, then stone houses, and onwards into ever-more valuable mansions and villas. On the other hand, if there is no reason for people to move in, the one tent will fold, leaving empty land. Most likely, some of your first housing units will become double-tents, and some will disappear. It is now up to you to develop the proper setting to increase housing quality and demand for increased population.

Creating Water Sources

The most important thing to your citizens is that they have access to a source of water; so that's the first thing to provide them with. Click on the *infrastructure* icon again (the one with the hammer and the "I", remember?); and look for the follow-

ing three icons: pipe over water, square with one wavy line, and square with two wavy lines. These are the **water icons.**

The first icon is called **Build Reservoir/Pipe**. Select this icon now. Houses close to a river or lake may get their water from a reservoir; if you have such houses, click **and hold** the left mouse button, while pointing to a space either *on* the river, or *on the coast of* a lake. If you build a *pipe* instead of a reservoir, you missed the right spot. Press the right button while still holding the left, then release both buttons and try again. When you've got the right place, just release the left button to confirm. (This is the same procedure as with building walls.)

It's more than likely that some of your housing is far from any lakes or rivers. The solution in this case is to build pipes leading from reservoirs, which will bring the water to them. Left-click on the same icon (if you haven't already); then, find a lake or river alongside, above or below the housing that needs water. Left-click (and **hold**) there, and a reservoir should appear. Release the button and try again if it doesn't. Then, *slowly* drag the pointer towards the housing; pipe should appear, in the same way as road sections do. The pipe sections will automatically be built under any roads you cross with the mouse; but only across them, and not through intersections. Stop building a few squares away from the houses; release the left button if you're satisfied with it, or right-click to cancel.

The next step in this case is to build a **fountain** at the end of the pipe; fountains provide a much larger area with water than reservoirs. Left-click on the third water icon, the square with two wavy lines; this is the **Build Fountain** icon. Point to the space at the end of the pipe you built and left-click the mouse. A gray square should appear, and if the pipe is complete (and not too long), it will soon fill with water. You may build more fountains (with their accompanying pipes and reservoirs) if you find it necessary.

The center icon, the square with one wavy line, is called **Build Wells**. Wells provide water over a very small area, but can be dug anywhere. Build a well in any small niches that reservoirs, pipes and fountains can't quite reach.

If you want to check your work, try the **Water Distribution** map available on the Maps Panel. Access it from the main City Level toolbar; blue areas are receiving water, and black areas are not. Refer to the manual if you need help.

*(**Note**: From here on, it is assumed you understand how and when to move between command and scroll mode when choosing icons and building structures.)*

Defending the City

Now that you have something to defend, you should set up your defenses. The icon with the wall drawn on it is the **Build Walls** command; left-click it now. Using the same technique as you did for roads and pipes, you can now "draw" walls to surround any part of the city area you choose. Do so now, remembering to leave lots of room for expansion.

Adding Towers to these walls will increase their ability to keep out invading barbarians. If you want to do this, select the icon to the right of the **Build Walls** icon, and place towers (by left-clicking) occasionally along the walls you constructed. This only works in areas where there are already walls. (Note: Towers cannot be built at three- or four-way intersections.)

Then, you should build a **barracks**; this produces soldiers that police the city for barbarians and rioters, and automatically eliminates them. This icon is available from the infrastructure toolbar, and is the one with a *sword* on it. Construct one in your city near some roads, and soldiers should soon appear and start patrolling.

Larger, more expensive walls and towers are available to help defend the city on Provincial Level; these icons are covered in the "**Provincial Level**" chapter of the manual.

Amenities and Entertainment

Your citizens prefer (and thus apply a higher value to) houses that are located close to buildings that enrich their lives or lighten their spirits. All such buildings are divided into two categories (amenities and entertainment), and are available from the **Construction toolbar**. To get there, left-click on the left-most icon to return to the main City level toolbar, then click on the icon with the hammer and letter "C" to access this new toolbar. The *amenities* are the five icons on the left: **bath house**, **temple**, **hospital**, **school** and **oracle**. The choices for *entertainment* are the three icons on the far right: **theater**, **coliseum** and **hippodrome**. You should experiment with placing some of these near your housing, to see how it grows and evolves in response.

To use one of these icons, left-click on it and the pointer will change to the shape of the structure. Left-click in an area clear of other structures to build one of the items. "Dragging" the mouse is possible, but not recommended.

***Note**: Citizens are particularly fond of their **bath houses**. You should make these small structures a top priority when building amenities.*

Businesses

A major source of income is the creation of businesses. These icons are the remaining three icons in the middle of the *Construction* toolbar: **Heavy Industry**, **Workshops** and **Marketplaces**. The three structures must work together to create prospering businesses. All three icons work like amenities or entertainment, with a slight exception for workshops (explained below).

There are eight types of businesses to choose from; each province is well-suited to some ot them, and poorly suited to others. To find out which is the best choice for your province, you need to check in with one of your Advisors at the **Forum**. (Note: this is not a specific reference to the forum you built, but rather to a screen from which administrative duties are carried out.)

A Brief Stop at the Forum

Return to the main City level toolbar, and click on the icon with an arrow pointing to a letter "F". (This icon also appears at the Provincial level.) The forum screen will appear, displaying the seven advisors that will assist you. You select an advisor by left-clicking on him; right-click at any time to exit this screen entirely.

Left-click on the Industrial Advisor; he's the second figure from the right. A screen will appear, with information on each of the eight types of businesses available to you. The **suitability** of each type is rated from "terrible" to "excellent." Take note of which businesses will do the best; then right-click once to exit the Advisor's screen, and again to exit the Forum. (You'll learn about the other advisors later.) Select the Construction toolbar to access the business icons.

Building Businesses

The first step is to build a place for **heavy industry**. This is a large structure, and lowers land values, so keep it somewhat distant from the center of the city. Next, construct **workshops** near or next to it; these depend on industry for their raw materials. When selecting the Workshop icon, you will be given a choice of eight types of business to run; choose one of the goods that was rated highly by the Industrial Advisor. Left-click on your selection, then proceed to build workshops as with the other icons. Workshops depend on nearby citizens to work in them,

so you may need to build more housing nearby. Also, workshops need to have markets nearby, or accessible by roads, for them to prosper. You should plan for this when building them.

Markets are the last step. As mentioned before, they should be either close to the workshops, or near roads that lead to workshops. Also, keep in mind that a nearby market provides a boost for housing.

As the game progresses, keep an eye on the "loading area" in front of your business workshops; if the business prospers, canisters of goods should pile up in this loading area to show you that things are going well.

Visiting the Forum Again

Having created and expanded your city, now would be a good time to check out the administrative side of things at the **Forum**. Return to the main City level toolbar, and click on the icon with an arrow pointing to a letter "F". The forum screen will appear again, with its seven advisors ready to take your commands.

Your first stop should be with the **Tribune of the Plebs**. Plebians (or "plebs") are the lower-class workforce of Roman times. Left-click on the Tribune, placed at the far-right of the screen. A new screen will appear; the amount of pleb groups you have and the amount you spend annually on the entire pleb labor force are displayed at the top of the screen. The bottom of the screen contains five sets of numbers and buttons, referring to the numbers of plebs assigned to each of the five duties. Construction work is handled automatically by the Tribune, so ignore it; road and building maintenance, fire prevention and army duty are controlled by you. The numbers in parentheses are the amounts of pleb groups needed to cover each task in the city as it stands now. The numbers next to them are the numbers of groups currently assigned to the tasks. Use the arrows to alter the numbers assigned to each group; if you run out of plebs, raise your welfare expenditure, and return to the forum later; new plebs take a while to become available. (Note: Army duty works differently from the other tasks, and is explained in the manual — see the chapter called "**The Forum**.") Right-click to exit this screen, or any of the advisor's screens.

Remember that **Cohort** you left patrolling the Provincial level? If you want to make it stronger, left-click on the second advisor from the left to access the **Military Advisor's** screen. Here, you can use the two pairs of arrows at the bottom of the screen to increase two things: money spent on Army Wages will attract more well-trained, Regular soldiers to your Legion; increasing the Conscription rate will draw more competent, Irregular soldiers from the city's

population. The number of men in your Legion will increase over time, not immediately; and it will take a while for them to be assigned to your Cohort. Adjust these two items as you wish, then right-click to exit the screen.

Next, select the third man from right. This is your Administrative **Advisor**; he rates your performance by four criteria: **peace**, **culture**, **prosperity** and **empire**. The pillars he displays will grow as your province progresses, and recede if it suffers. Click at the base of each pillar for basic advice on how to improve each rating.

Things to Watch Out For

- At some point, your city will expand beyond the reach of its forum; see the administration map to check on this. Building prefectures, more *fora* (plural of forum), or demolishing your current forum and building a larger one, might be in order.
- At the Provincial level, you should consider erecting Great Walls to block invading armies, or building more forts to split your Legion into more Cohorts.
- A good way of helping the province is to connect the capital city to those small towns on the outskirts. This helps develop the towns with goods traded from your businesses — and boosts those businesses, too.
- Use the different maps on the Maps panel; they will give you a variety of helpful information on your city.
- Be sure to have enough money at the end of each year to cover costs, and to pay the annual tribute. Remember, miss three tributes in a row and the game ends — with your potential **execution**.
- Watch the Advisors at the Forum carefully. Always make sure there are always enough plebs to cover your expanding city. The Financial Advisor and Treasurer can help you watch where the money is going and coming from; one with graphs, and the other with hard data from the previous year.

  The Industrial Advisor will rate the industrial output for the entire city, and measure the prospects for expansion. Finally, check with the Political Advisor to see how well you're really doing!

LEARNING THE INTERFACE

This game has been designed with an easy to use, mouse-driven point and click interface. Most commands you want to issue will be associated with an icon (a small picture) on the screen. These icons are always along the bottom of the screen in a **toolbar**; click on an icon to access its command. Other commands will be accessible through **panels**, which list a series of options and commands at once. These panels are available either from an icon, or from another panel.

MOUSE CONTROL MODES (COMMAND AND SCROLL) — The mouse pointer works in two modes. The game begins in the first one — **Command** mode. Here, the pointer looks like an arrow, and icons and panel options can be selected by clicking on them. Note: in all screens but the City Level and Provincial Level screens, the mouse remains in Command mode at all times.

The second mode is **Scroll** mode. If you give a command that needs a location to be specified (like building something), the pointer will change - usually into a picture of the thing you want to build — and you are put into Scroll mode. Here, when you move the mouse beyond one of the screen edges, the screen display will move in that direction up to the border of the terrain area. Both of the main terrain displays in the game, City and Provincial level, are of an area much larger than what is first visible on the screen. The entire area is displayed in an optional Position Indicator, located in the top-left corner of the screen.

You can switch between modes by clicking the right mouse button. If you had selected an icon to build, you will be returned to command mode to select a new icon. If you were in command mode, you will be put into scroll mode with control of the last icon you selected.

TOOLBARS — As stated before, toolbars contain the majority of commands you wish to use in the form of icons. The majority of these icons involve some form of construction, which always comes with a predetermined cost. Thus, to help you decide what to build and when, the amount of your **Available Funds** are displayed at the end of every toolbar.

*Note: The **Infrastructure** and **Construction** toolbars are accessed from two icons on the main City Level toolbar. These secondary toolbars will remain until you click on their left-most icon, in the shape of a arrow facing left, or left-click above the toolbar while in command mode. Remember that you can only affect toolbars while in command mode.*

IDENTIFYING ICONS — If you are ever unsure of what an icon does, just move the mouse pointer over it **without** pressing any buttons. The name of the icon appears in the top-right corner until you move the mouse onto another icon,

or off the toolbar entirely.

If you want more information on an icon, just point to it and click **both** the left and right mouse buttons. A small panel will appear with the information you want; right-click to exit the panel and continue.

HOW TO BUILD — The steps in building a structure are covered in the next chapter, **Basic Concepts**.

BASIC CONCEPTS

OVERVIEW

Life in the Roman Empire is in many ways different from what you're used to. So to help you learn your way around **Caesar**, some of the basic concepts are explained below:

1. **Three Views of the Empire**
2. **Buildings and Structures**
3. **Time in Caesar**
4. **The Evolving City**
5. **Citizens and Soldiers**
6. **The Forum**
7. **Money in Caesar**
8. **Defense and the Roman Army**
9. **Promotion and Politics**

1. THREE VIEWS OF THE EMPIRE

Your view of the Roman Empire (and the small part of it you control) comes to you through three levels of detail.

The Roman Empire is divided into Provinces; at any point during the game you are in charge of one of these provinces. The **Map of the Empire** displays all of these provinces, with *standards* (the Roman equivalent of *flags*) marking both the provinces you have previously controlled, and the one you control now. This map appears before you start each province, and is available from the **Forum**.

The next level of the game is the **Provincial Level**. Here, a scrolling window moves across the entire province. When you start a province, all that will exist on this level will be nearly impenetrable terrain, your capital city, the smaller towns surrounding it, the Imperial Highway Junction, and the red battle standard (or flag) representing the Cohort (a Roman grouping of soldiers) assigned to defend the Capital. You can improve the province by building roads that connect towns to the Capital, which promotes trade; by building an Imperial highway that allows you to expand beyond the limits of the Empire, further promoting trade; by creating more Cohorts to patrol the province against barbarian armies; and by building Great Walls across the terrain to create a line of passive defense against the barbarians. All these tasks cost enormous amounts of money, so development at Provincial Level must be considered carefully.

The last and most important level of the game is **City Level**; it is here where you will spend most of your time. What you saw as just one symbol on the Provincial Level, you now see as a real city: showing every road, building and structure within it. Initially, City Level is a bare landscape of rocks and trees, rivers and lakes. Your primary job as Governor is to clear the way for housing, hospitals, schools and all the other buildings of the capital. Eventually, most of this countryside may become a bustling urban landscape. (To increase replay value, the terrain of both City and Province Level will be generated randomly each time you start a province.)

2. BUILDINGS AND STRUCTURES

Your main task in the game will be choosing what to construct, and where. You will need to order many different construction projects to maintain an affluent and secure province. All construction costs are listed in Appendix A of this manual.

There are two different procedures for building. In both, the thing you want to create has its own **icon**; icons appear in **toolbars** at the bottom of the City Level and Provincial Level Screens. When you have the proper toolbar (see below), click on an icon, and the mouse pointer becomes an image of the thing you want to build (in some cases, it becomes a frame the size of that structure), and displays the **cost** of building it. At the same time, you are automatically taken into Scroll Mode (see Learning the Interface) so you can move over the city until you find the right spot.

In the first method (used for everything except walls, roads, pipes and highways), just left-click on the desired site to place your new development. If you keep the mouse button pressed down and drag the pointer across the screen, the new construction will be repeated again and again in all of the places the pointer passes over. This is particularly useful when building houses.

In the second method (used for walls, roads, pipes and highways), click **and hold** the left mouse button at the location you want to begin, then "drag" the pointer along the path you want the structure to follow. Release the left button to confirm the action, or press the right button **while still holding down** the left button to cancel it.

In both cases, any terrain in your way will be cleared away automatically. On the Province Level, some structures will cost more to build, depending on the density of terrain that needs to be cleared away. The increase in cost is as follows (base costs are given in Appendix A of this manual):

Provincial Terrain	**Construction Cost**
Clear Ground	base cost
Forest	base cost times 2
Rocky Terrain	base cost times 4

CITY LEVEL TOOLBARS — On the City Level, there are too many building projects possible to fit them all onto one toolbar. So to get to the icon you need, you will first have to indicate which kind of project to order; this replaces the main toolbar with a new one that contains icons representing the specific structures in that category.

All structures (except housing and bath houses, which are available from the main toolbar) have been divided into two categories, both of which have an icon on the main City Level toolbar.

- **Infrastructure:** roads, water supply, walls, barracks and administrative buildings
- **Construction:** amenities, business and entertainment

3. TIME IN CAESAR

Caesar is played in **real time** — your province is constantly growing and changing, even when you are not giving it commands. You will be able to see it progress and change as buildings evolve or decay, citizens and soldiers walk along your roads, Cohorts perform their patrol maneuvers, and so on.

Both the City level and the Provincial level run at the same time — while you

watch over one level, the other level continues to function, out of sight. It is therefore important not to linger on either of the two levels. However, you will be notified of important events regardless of which level you are on; messages will inform you of barbarian sightings, fires, population growth and other events. Right-clicking on a warning message will send you to the place where the incident is occurring.

You can pause the game by clicking on the Game Options icon (see City Level) and choosing Pause, or by pressing the "T" key while on the City or Provincial Level. You will be able to scroll over your terrain while paused. The game also pauses whenever you leave the two main displays — for example, when looking at Maps or consulting your advisors in the Forum. Such screens can also be used as a "pause mode" for the game.

4. THE EVOLVING CITY

In many cases, buildings will expand or fail independently of you, once they are set up. For instance, if you order housing for an area, your first settlers put up simple tent-like, semi-permanent dwellings. If you fail to provide basic amenities, opportunities for employment and so on, the inhabitants will just pack up and leave — the tents will vanish. If you create the conditions for a fashionable residential area, the tents will eventually become luxurious villas.

This sort of evolution also occurs for temples and baths. Temples evolve through several levels when the city becomes large. Baths will likewise become Grand Baths when in the proper environment. Each of these expansions increases the benefits of these structures to the city.

Eventually, buildings that evolve will actually combine with nearby buildings, or expand into empty land, to form larger, more majestic structures. This sort of growth will happen on its own (if the conditions are right), and is a positive sign.

5. CITIZENS AND SOLDIERS

As your city grows, you will begin to see some of your Citizens walking along the roads to and from the Forum. These are a sign of the activity and connections between your buildings. Also, if you have built a barracks (see the chapter on **Infrastructure**), soldiers will begin to patrol the city. These soldiers are there to intercept invading barbarians and rioters (see **Defense**), below.

6. THE FORUM

Beyond designing the layout of the city and province, you will spend a lot of time making administrative decisions in the Forum. Here, you listen to the reports of your seven advisors (Political Advisor, Military Advisor, Financial Analyst, Treasurer, Administrative Advisor, Industrial Advisor and Tribune of the Plebs) regarding the various financial, material and political affairs of the Province. Then, you can use the abilities of each advisor to alter the course of these affairs. The reports and abilities of each Advisor are detailed in the chapter titled **The Forum.**

7. MONEY IN CAESAR

Money makes everything in the game happen. It pays for construction and maintenance, recruits soldiers, and appeases the Emperor. The unit of money in Imperial Rome is the Denarius — the plural is *Denarii*. For your convenience, the amount of Denarii you have to spend is displayed at the end of every toolbar.

There are five main costs you will have to face in the game: **construction costs**, **paying your soldiers**, **looking after the Plebian ("pleb") population**, **paying the Governor** and **the annual tribute**. You will be able to gain money from **taxes** - which are split into population tax and industry tax. Both the five categories of costs and the sources of tax revenue are discussed in the chapter titled **How the Model Works: Prosperity**.

8. DEFENSE AND THE ROMAN ARMY

Your province is by no means a safe haven; waiting on the fringes of every province are armies of **barbarians**, ready to pillage the outlying towns and invade the capital city. You have many means to defend against these marauders. First, you may build **Forts** on the provincial level; forts house **Cohorts** which you can send to patrol the province and attack Barbarians. Second, you can build **Barracks** on the City level; acting as a sort of local army, Soldiers will automatically patrol the city and intercept individual barbarians that enter it. And finally, **walls** and **towers** can be built on either level, creating lines of passive defense against any invaders.

Another source of attacker might appear if you manage your province poorly. Citizens outraged with poor living conditions may become **rioters**, and begin looting the city. The soldiers produced by your **barracks** will also go after rioters, just as if they were barbarians.

BASIC STRUCTURE OF THE ROMAN ARMY — Each Province is assigned one **Legion** of men; this contains all of the soldiers you have available on the Provincial level, and can contain any number of men. The Legion is split into units called **Cohorts**; these groupings, each carrying their own *battle standard* (a kind of flag or title), are the units which you command to perform individual tasks or maneuvers.

Each Cohort consists of several **Centuries**; literally, groups of 100 men. Each Century contains only *one* type of soldier: either one hundred **regulars** (superbly trained, professional soldiers), **irregulars** (reasonably proficient, drafted men) or **auxiliaries** (poorly-performing, untrained pleb soldiers). In Caesar, each Cohort will also have a morale rating, which will increase if they win battles, and go down if they lose; a Cohort's morale rating affects its ability to fight. All of this information can be seen for each Cohort from the **Military Advisor** screen (see the chapter titled **The Forum**).

Cohorts are represented on the Provincial level by the fluttering red flag and unique gold ornament of their battle standard. You begin each Province with just one Cohort, the *Prima Cohors* ("first cohort"); its standard is topped by a golden eagle. You can create more Cohorts (up to ten in all) by building **Forts**.

Barbarians carry their own battle standards, which are unique for each race.[4]

9. PROMOTION AND POLITICS

While your job is to manage your province and capital city efficiently, your **objective** is to do well enough to earn a promotion. When you are promoted, you will be moved to another province where the standards of development expected from you will be higher. Your final reward for completing this series of increasing challenges is the rank of **Caesar** — Emperor of Rome.

Note: *Just because you qualify for a promotion, it does not mean you are forced to accept it. You can turn down any opportunity to be promoted, and continue to develop the province you have.*

Your performance as provincial Governor will be assessed according to four criteria:

Peace - the degree of security your people enjoy
Culture - the public and cultural amenities available to citizens

Prosperity - the wealth you have brought your province
Empire - the communications and transport network in the region

You will also have an **overall** rating, averaging these factors. To earn a promotion, you need to achieve a certain overall rating, as well as a set minimum rating in each category. These ratings are always visible via the Forum, along with a measure of your Imperial Favor — your importance and competence in the Emperor's eyes.

Meanwhile, a very important part of your political career is the annual payment of a **Tribute to Rome**; this payment is automatically deducted at the end of each year, and increases from year to year. If you are running your province poorly, you might not have any funds available at the end of the year to pay the tribute; miss three tributes in a row and the game ends (potentially, so does your life!). Thus, even if getting promoted isn't important to you, keeping in the Emperor's good graces must be.

CITY LEVEL

The majority of the game takes place at City Level; here, you design and maintain the capital city of your province. The majority of this screen is taken up by a **scrolling view** of your City; you can use *scroll mode* (see **Learning the Interface**) to shift this view to any part of City Level. The **position indicator** in the top-left corner of the screen is a basic map of the terrain; a red rectangle indicates what part of the City level you are looking at. The Position Indicator is an option that can be turned off.

An additional display that appears occasionally at the top of the screen is the **message panel**. This panel will signal landmark increases in population, and warn you of various threats to your city and province. If you right-click on the panel when it tells you of a threat, your view will shift automatically to where it is taking place.

When the game starts, the scrolling view is filled mostly with weeds; these are automatically cleared away as you build and expand your city. **Lakes and rivers** are more important natural features of the terrain; you will use these to create water supplies for your citizens.

You develop your city by adding **buildings, structures** and **roads** to the terrain through the scrolling view. Over time, **citizens** and **soldiers** will start walking

along your roads; citizens are a sign of the activity among your buildings, and soldiers defend against rioters and barbarians.

Finally, all of your orders to build are given through the **toolbar** at the bottom of the screen. Each **icon** represents a command to give or structure to build; the icons change depending on which toolbar is activated. Every toolbar also displays your **available funds**, so you can see what you can afford to build.

THE MAIN TOOLBAR

The first level of control in **Caesar** is the Main Toolbar. All other menus are reached either directly or indirectly from here. Each of the nine icons of the main toolbar are detailed in later chapters. From left to right, the nine icons are:

GO TO PROVINCE shifts the game window to **Provincial Level**, and accesses the Provincial Level Toolbar. Remember that the action on the City level continues, even when you aren't watching it.

GO TO FORUM displays the Forum and its seven advisors; from here, administrative decisions can be made and the economic welfare of the province is surveyed. See the chapter entitled **The Forum** for more information.

GAME OPTIONS opens the Game Options panel, with choices for saving games, loading games and configuring game settings.

MAPS activates the Maps Panel, displaying maps that summarize various aspects of the city.

CLEAR AREA clears terrain for building, and removes structures previously built.

HOUSING builds housing areas.

BATH HOUSES builds bath houses.

INFRASTRUCTURE accesses the infrastructure toolbar.

CONSTRUCTION accesses the construction toolbar.

GAME OPTIONS

The Game Options panel, accessible from the main toolbar, contains the following commands:

RESUME GAME — This exits the options panel and returns you to City level.

GAME SPEED — Click here for a panel that lets you control game speed and scroll speed. If you find it hard to control scrolling of the game, or that your city and province change too quickly to react, you can slow them down here. Change speeds with the arrow buttons; left-click on "OK" or right-click anywhere to exit this panel.

SOUND EFFECTS — The panel that appears contains options for music and sound effects; these can be toggled on or off independently. Right-click to return to the options panel. **Note**: Music and sound effects will only be available to owners of certain kinds of soundboards. See the technical supplement for more information.

LOAD GAME — You can load in a previously saved game at any time. Amiga users playing from floppy disks must have their games saved on a separate floppy. Filenames can be entered in three ways: by typing it in, by clicking on a name in the directory window below; or by using the arrows to change letters in the currently selected displayed filename. Click on "OK" to load the game, or "Cancel" to cancel the operation.

SAVE GAME — You can save your progress at any time in the game. If playing from floppy (Amiga users only), you will have to insert a fresh, formatted disk. The procedure is the same as for loading games.

DISPLAY OPTIONS — Click here to bring up the display options panel. Three options can be toggled on and off: the Position Indicator in the top-left corner of the screen, the Icon name panel that appears in the top-right corner of the screen, and the messaging system that appears at the top of the screen. The messaging system signals important events like barbarian incursions, natural disasters, population increases etc.; you should only disable it if you are confident that you can keep track of everything yourself. Left-click on "OK" or right-click anywhere to return to the Options panel.

PAUSE THE GAME — Click here to pause the game. While paused, you will be able to view the city and scroll your view over it. Right-clicking the mouse or typing the <ENTER> key unpauses the game and exits the Game Options panel.

RESTART GAME — Click here to end the current game and begin again. You will asked to confirm your action; if you restart without first saving your current game, it will be lost.

EXIT TO DOS — Exits **Caesar**. You will be asked for confirmation; if you don't want to lose the game you are currently playing, make sure to save it before quitting.

CLEAR AREA, HOUSING AND BATH HOUSES

CLEAR AREA clears trees, weeds and rocks, destroys buildings and structures, removes rubble from destroyed buildings, and puts out fires. However, you do not need to clear foliage before building something — it is automatically done for you. The two most common uses of this command are: to destroy property that either was misplaced or is not faring well, or to clear rubble created by fires, barbarians, rioters or neglect. Odds are, you will be using this command often. It costs **1 Denarii** to clear a "square" of ground.

HOUSING is, of course, the most basic thing your city will need. This command creates huts for prospective citizens to live in. If the location of the huts is attractive enough, and the city is prepared to care for and employ new citizens, settlers will move in and the huts will grow; otherwise, they will soon disappear. The success of housing depends on several things: adequate water supply; road access to a Forum; markets available nearby or by road; amenities and entertainment.

There are **sixteen** grades of housing that a tent can evolve into; however, this evolution is limited by the **value** of the land the housing is built on, which in turn is affected by employment rates and tax rates. Higher grades of housing have a higher population density, which increases your population and (naturally) your population taxes; they also have a greater positive effect on land values. The cost of building housing is **2 Denarii**.

Note: As a house evolves, it will sometimes grow outwards as well as upwards. An expanding house may take over other housing of equal or lower grades, or empty space; it will take over other types of buildings **only** if the resulting benefits are greater than what was there before.

BATH HOUSES are very important to the quality of life of any civilized Roman.

They improve the quality of housing in two ways: first, they are considered an asset to your citizens, causing nearby housing to develop and expand; and second, they raise land values, which raises the limit on how far housing can develop. Bath houses need water to function, so consider them when placing your reservoirs, pipes, wells and fountains.

Bath houses will grow into larger, Grand Baths when built in areas of high **land value**. Grand Baths have the same effects as normal bath houses, but to a greater degree and over a greater distance. When a bath house grows, it may take over space filled by other baths or low-quality housing. A bath will not grow if a valuable building or structure is in the way. Building a bath house costs **40 Denarii**.

INFRASTRUCTURE

Most of the essentials for building a successful city are located on this toolbar. Basic sustenance of the city and its citizens can be produced using the following commands:

ROADS are needed to connect your citizens with the Forum, and to connect workshops to markets in other parts of the city. Road access is extremely important to the development of housing; and it boosts production for a workshop if no markets are close by.

To build a section of road, press **and hold** the left mouse button, and "drag" the pointer along the path you want the road to go. If you are satisfied with the job you did, then release the button to confirm the action; otherwise, press the **right** mouse button while still holding down the left, and the road will disappear.

Roads can be built to cross other roads, run through walls and over pipes and rivers. Three and four-way intersections, gates (see **Walls**), buried pipes and bridges will be built automatically when roads meet these structures. **Note:** Intersections are a considered a sign of development, and raise land value slightly.

Building a section of road costs **3 Denarii**.

PLAZAS are an improvement on the normal road system. Roads that have already been built can be converted into wide, flat plaza space. Plazas are more appealing, and increase land values. The cost of converting one square of road to a Plaza is **10 Denarii**.

WATER ICONS

Houses and Baths need water. Housing values will be severely curtailed if you fail to provide them with water, and baths offer no benefits if you don't keep them filled. You are not expected to connect plumbing directly to each structure; your water sources provide water to a given area surrounding them. The parts of the city that currently receive water can be seen with the **Maps Panel**, which is explained later in the manual. There are three water sources available in the game: Wells, Reservoirs and Fountains.

BUILD RESERVOIR / LAY PIPE has two functions: first, it builds reservoirs either in a river or on the coast of a lake; second, it lays pipes. **Reservoirs** can be used as water sources for houses that are close to them; **pipes** are for connecting reservoirs to fountains that serve as water sources for large areas. Pipes can turn corners and travel under roads and walls, but they cannot cross over other pipes or branch off with three-way connectors. There is no limit to how long your pipes can be.

To build a reservoir, pipes or both, press **and hold** the left mouse button, and "drag" the pointer along the path you want them to go. The computer will build a reservoir in the proper location, and pipes everywhere else. If you are satisfied with the job you did, then release the button to confirm the action; otherwise, press the **right** mouse button while still holding down the left, and the structures will disappear.

When building pipes, you must **start** with the reservoir, then build pipes extending from it; the process will not work the other way around. Also, pipe-laying is extremely sensitive to other nearby pipes and reservoirs; some pipe sections will not be built if other pipes are nearby. You will learn over time how to structure them properly.

It is possible to continue laying pipe past a fountain to connect others further inland. However, if you connect too many fountains in sequence, later ones may work erratically, or not at all. Building a reservoir and laying a section of pipe each cost **3 Denarii**.

WELLS are the simplest water source. They can be sunk anywhere, but only provide water within a very limited area. Building a well costs **5 Denarii**.

FOUNTAINS will provide water to a large area, larger than either wells or reservoirs. Fountains only work when they are connected to a reservoir by pipes. If a fountain is in an area with high land values, it will *ripple* (showing concentric squares). Also, since fountains are so useful and considered attractive to your citizens, they also increase land values slightly.

It is possible to continue laying pipe past a fountain to connect others further inland; however, additional fountains only have a limited supply of water. These faulty fountains will constantly alternate between filling and draining; their benefits to the city will come and go with the water. This can be rectified somewhat by connecting more than one reservoir to a fountain.

Building a fountain costs **10 Denarii**.

*NOTE: As mentioned earlier, **Bath Houses** are also very important to the quality of life of any civilized Roman; while not water sources themselves, they rely on water to function. You can read about them in the previous chapter.*

WALLS are, aside from the soldiers produced by Barracks, your last line of defense against Barbarians. Primarily, the Great Walls and Cohorts on the Provincial level should take care of barbarian incursions, but a complete and intact system of city walls will keep barbarians from destroying city property. Walls can be built over roads and pipes; gates will appear when crossing a road.

Gates are weaker than walls, and are more likely to break when attacked by a barbarian. They are manned by local militia, and therefore help to quiet unrest in the immediate area. They raise land values slightly in the immediate area; however, as a military force, they also set a limit on how high land values can rise around them.

To build walls, press **and hold** the left mouse button, and "drag" the pointer along the path you want them to go. If you are satisfied with the job you did, then release the button to confirm the action; otherwise, press the **right** mouse button while still holding down the left, and the walls will disappear. Building a section of wall costs **5 Denarii**.

TOWERS increase the strength of city walls. A barbarian will have a greatly reduced chance of breaking through a city wall if a tower is built nearby. Note that towers are not free-standing structures; they must be built where a wall section already exists. However, they cannot be built on three-way or four-way intersections. Building a Tower on a wall section costs **10 Denarii**.

PREFECTURES are something like the Roman equivalent of police stations. Peacekeepers, tax collectors and other officials work out of them to extend the reach and authority of the government — namely, you — past the confines of your *Fora* (see below). Taxes are collected from the houses and businesses sur-

rounding a prefecture, and the potential for unrest is lowered over a slightly smaller area. Prefectures raise land values slightly; however, administrative buildings are unpopular with your citizens, and will also **limit** land values to a maximum over a small area. Building a prefecture costs **25 Denarii**.

BARRACKS are small, local militia bases, which hold a few soldiers each. Barracks put out soldiers who will intercept any barbarians and rioters they encounter. Note that these soldiers act automatically and need not be controlled by you. Barracks also act as a calming influence on the area surrounding them, and will lower the potential for unrest among nearby citizens. Land values are raised slightly by barracks; however, your citizens dislike living near a military post, and land values will be limited to a maximum in the area surrounding them. Building a Barracks costs **80 Denarii**.

THE FORUM is one of the most important buildings you will erect. This large open square, surrounded by public buildings, is an administrative center, major meeting place and social center for the populace all in one.

Forums have many benefits. The area around a Forum is considered to be under firm administrative control; taxes will be automatically collected from nearby houses and workshops. Also, having road access to the Forum is of vital importance to the development of housing. Finally, forums have a positive effect on nearby land values, which limit how much housing, baths and temples can develop. **Note:** Unlike prefectures, a forum does **not** help to prevent unrest; you should turn to other sources (prefectures, barracks, temples, oracles) to handle that.

Note that while your first forum should be the center of each new city, more than one *fora* (the plural of forum) may be built to handle its expansion.

There are eight types of forum, which increase in size and cost. The more expensive a forum is, the greater its administrative reach will be and the greater its effect on land value. The costs of the eight styles of forum are: Aventine — **60 Denarii**; Caelian — **100 Denarii**; Esquiline — **140 Denarii**; Janiculan — **200 Denarii**; Regia — **250 Denarii**; Pincian — **300 Denarii**; Palatine — **350 Denarii**; and Romanum — **500 Denarii**.

MAIN TOOLBAR — The left-most icon on this toolbar (the one with an arrow facing left on it) closes this toolbar and returns you to the main City level toolbar. If you prefer, you can also left-click anywhere above the toolbar, while in command mode, to do the same thing.

CONSTRUCTION

This toolbar contains icons for controlling three vital aspects of your city: amenities, businesses and entertainment. The icons for each of these three areas are listed below:

AMENITIES

Amenities are buildings that fulfill an important role in raising the quality of life for your people. They boost the value of housing located near them, and help raise your city's rating on Culture. (For more information on this and other ratings, see **The Forum**.) The following four structures are Amenities:

TEMPLES are places of worship, considered vital to the well-being of your citizens. The number of temples you build should be in accordance with the size of the population — the more people live there, the more temples should be available to accommodate them. Temples are religious sights and will thus effect your "Culture" rating. Temples also keep your citizens calm, and help to quiet unrest in the city. They also raise land values somewhat.

Temples act like houses — under the right conditions, they will evolve from small huts to grand marble shrines. The factors that affect the evolution of temples are population and the land value at their locations. A higher grade of temple will raise land values and help prevent unrest over a greater distance. Building a temple costs **20 Denarii**.

Note: *As a temple evolves, it will sometimes grow outwards as well as upwards. An expanding temple may take over other temples of equal or lower grades, or empty space.*

HOSPITALS are another amenity; by providing medical care, they encourage the development of nearby housing, and raise land values. Building a hospital costs **60 Denarii**.

SCHOOLS are valued for their educational benefits; by educating your citizens, they raise land values and encourage the development of nearby housing. Building a school costs **60 Denarii**.

ORACLES are similar to Temples in their effects — they raise the Culture rating and land values, and help to quiet unrest. They do not grow as temples do, but they do effect a greater area than temples. Building an Oracle costs **200 Denarii**.

BUSINESSES

Businesses are the means for your citizens to find employment, and are an important source of income for the city. The goods produced by businesses are traded within the capital city, with the smaller towns of the province, and with the rest of the Empire. However, business-related structures limit land values in their part of the city, restricting the growth of housing and temples. The following three structures are necessary to building businesses:

HEAVY INDUSTRY is the first component of creating businesses. Workshops need one nearby, to provide the raw materials they need to produce. A heavy industry structure is the largest thing you can build. Heavy Industries raise land values slightly, but they also limit land values to a very low level. Building a heavy industry structure costs **300 Denarii**.

MARKETS are the venues by which your people purchase goods; businesses are only profitable when people can buy what they produce. Markets should be located either near workshops, or near roads that lead to workshops; otherwise they will have nothing to sell. Markets raise land values slightly; they also limit them somewhat, so that they cannot rise above a certain level. Building a market costs **20 Denarii**.

WORKSHOPS are where the actual marketable goods are made. There are eight types of workshops: glass, tin, pottery, copper, wine, ivory, wheat and spices; you will have to choose an industry when building a workshop. The colored symbol in the bottom-right corner of a workshop indicates which industry it produces for. The success of a workshop is measured by its output; this can be seen by counting the number of jars that appear in the "loading area" next to that symbol. A workshop raises land values slightly, but limits them overall to a very low level.

The success of a business depends on several things: citizens available for employment; road access to a marketplace (or to a location near a marketplace); naturally prospering businesses for that province (is it Wine country or wheat country?); other businesses of same type in city (is there a surplus of this type of good?); trade routes available to the towns of the province and/or the rest of the Empire; a favorable industrial tax rate. Building a workshop costs **50 Denarii**.

ENTERTAINMENT

Having sources of entertainment nearby acts as a tonic on your hard-working citizens. Their presence is a boon to housing, and raises land values around them as

well. Sources of entertainment also increase your city's rating in Culture.

THEATERS, **COLISEUMS**, and **HIPPODROMES** have increasing costs and ranges of effect, but all essentially work as explained above. Theaters cost **100 Denarii**, Coliseums cost **200 Denarii** and Hippodromes cost **300 Denarii**.

MAIN TOOLBAR — the left-most icon on this toolbar (the one with an arrow facing left on it) closes this toolbar and returns you to the main City level toolbar. If you prefer, you can also left-click anywhere above the toolbar, while in command mode, to do the same thing.

PROVINCIAL LEVEL

While often out of sight, the welfare of the entire province should concern you as much as the development of your capital city. It is at the province level that the security of the city is best maintained; and it is also here that trade with other towns is established, increasing the sales of your businesses and thus your income from business taxes.

Provincial Level has a **scrolling view** and optional **position indicator**, that work in the same way as on City level. However, your view now encompasses the entire province, and your **capital city** appears as one symbol in the middle of it. There are four small **towns** at the edges of the province; you develop them by connecting **roads** between towns and your city. The province also contains an **Imperial highway junction**, which symbolizes travel to lands outside the Empire; you gain the benefits of Empire by connecting an **Imperial highway** between the junction and your city.

Barbarian armies will enter the province, either by land or sea; they will attempt to pillage both the outlying towns and your capital city. There are two ways to defend against them. The first is to build **Great Walls** and **Great Towers** to block the barbarian's progress into the Province. The second is to build **Forts**; each fort is home to a **Cohort**, which is a group of soldiers you order to patrol and intercept invaders.

As with the city level, a **message panel** will appear occasionally at the top of the Provincial level screen. This panel indicates landmark increases in population, and warns you of various threats on both the province and its capital city. If you right-click on this panel when it tells you of a threat, your view will shift automatically to where it is taking place.

Finally, all orders on the Provincial level are given through its own **toolbar**. Some commands are similar or identical to those on City level. The following com-

mands are available from the Provincial Level toolbar.[32]

GO TO CITY returns you to the city level of the game. Remember that the game has also been progressing on the city level, even though you weren't watching it.

GO TO FORUM displays the Forum and its seven advisors; here administrative decisions are made and the welfare of the province is surveyed. See the chapter entitled **The Forum** for more information.

CLEAR AREA works in the same way as it does on the City level — it clears foliage and removes structures that you no longer want standing. Its most common uses here are to correct mistakes in building walls or roads, and to destroy a fort (thus disbanding its Cohort). It costs from **15 Denarii** to **60 Denarii** to clear an area on the provincial level, depending on the existing terrain.

BUILDING COMMANDS

Fewer things can be built on the Provincial level, and those that can are similar to structures found at the city level. However, most structures like provincial roads and Great Walls cost much more than they do in the city, because of the immense distances that they must traverse. Also, since terrain features at this level are much more massive and obstructive than on City level, you will need to pay more for building on different kinds of terrain. The structures available at this level follow:

PROVINCIAL ROADS are vital to the good of the province. Connecting your capital city to the small towns in the province allows trade to begin; this (along with a supply of sellable goods from businesses) lets the towns grow and thus increases your Empire rating. However, this rating is decreased if your roads aren't straight enough. Provincial Roads are vulnerable to attack from Barbarians; you should try to keep them well-defended.

To build a section of Provincial road, press **and hold** the left mouse button, and "drag" the pointer along the path you want the road to go. If you are satisfied with the job you did, then release the button to confirm the action; otherwise, press the **right** mouse button while still holding down the left, and the road will disappear.

Provincial roads can intersect each other, cross Imperial Highways, and form gates to go through Great Walls. They will bend or form intersections to connect to an adjacent town or city. They should not be connected between two towns; each town must be connected to the capital city. Building a section of provincial road costs from **30 Denarii** to **120 Denarii**, depending on the terrain.

THE IMPERIAL HIGHWAY is your province's link to lands beyond the extent of the Empire. One possible development of the Provincial level is to build an Imperial Highway between the Capital City and the **Imperial Highway Junction**. The Imperial Junction square, located somewhere at the edge of the province, is symbolic of your Province's connection to distant areas by land and/or sea travel. In some cases, it will appear on the coast of an island instead of the edge of the map; this doesn't effect its benefits in any way.

To build a section of Imperial Highway, press **and hold** the left mouse button, and "drag" the pointer along the path you want the highway to go. If you are satisfied with the job you did, then release the button to confirm the action; otherwise, press the **right** mouse button while still holding down the left, and the road will disappear.

Imperial highways can intersect each other (though this shouldn't be needed), cross Provincial Roads, and form gates to go through Great Walls. They will bend or form intersections to connect to the capital city and the Imperial highway junction. Building a section of Imperial highway costs from **60 Denarii** to **240 Denarii**, depending on the terrain.

FORTS are your method of defending the province from barbarians. A Fort is the headquarters of a cohort, which is the basic grouping of men in the Roman army. Building a fort creates a building for soldiers to live in, and declares that a new Cohort be formed to operate there. The fluttering red flag that appears above the fort is the symbol of the Cohort, which you may command with the **Cohort Commands** (see below) to patrol the province or intercept hostile barbarians. You begin each province with one Cohort: the Prima Cohors.

Note that creating a Cohort does not mean that you have created more soldiers. The Cohort is just a method of organization; adding a second cohort to your army (you start with one) just splits your forces in half. To increase the number of soldiers in your army, use the commands available to the **Military Advisor** or the **Tribune of the Plebs** — see the chapter titled **The Forum** for details.

You can have no more than **ten** Forts (including the Prima Cohors). Building a Fort costs **500 Denarii**.

(Note: For a brief overview of the organization of the Roman army, refer to ***Basic Concepts****, earlier in this manual.)*

GREAT WALLS are a potent line of passive defense against the barbarian hordes. They can stretch across the countryside to provide your city with a near-impregnable barrier. They are also extremely expensive; however, it is preferable to stop the barbarians at this level, rather than risk letting them destroy city property at City level.

Great Walls can be built over Provincial roads and Imperial Highways; gates will automatically be built at these points. Your Cohorts can travel through these gates, while barbarian armies cannot; however, gates are more likely to fall to a barbarian attack.

Great Walls, because of their immense size and weight, will slowly and inevitably decay over time. They must be manually maintained; you must patch any gaps that occur. The process of decay is slowed when sufficient Plebs are assigned to Province duty. Building a section of Great Wall costs from **40 Denarii** to **160 Denarii**, depending on the terrain.

GREAT TOWERS have the same effect on Great Walls as their smaller counterparts do to City walls; the chances of a barbarian army breaking through a Great wall are greatly reduced if a Great Tower is built nearby. And as with city towers, Great Towers are not free-standing structures; they must be built onto a pre-existing Great Wall. Also, like their city counterparts, they cannot be built on three-way or four-way intersections. Building a Great Tower costs from **90 Denarii** to **360 Denarii**, depending on the terrain.

COHORT COMMANDS

Standing above your capital city is the red flag of the Prima Cohors (meaning "first cohort"). This Cohort, along with any others you create with the **Fort** icon, can be commanded by you to patrol the province, confront a barbarian army directly, or return to base.

***Selecting a Cohort*:** You will have to select an individual Cohort when using any of these commands. Since the base of a Cohort's battle standard is so narrow, the mouse pointer is set to home in on a Cohort when you try to select it. If you left-click near a Cohort's base, the pointer will slide over and "stick" to it. In this case, you'll need to left-click again to confirm that this is in fact the Cohort that you want. If you left-click without being near a Cohort, the pointer will then "stick" to a nearby Cohort if you move it next to one; you must left-click again to confirm. In all cases, the mouse pointer turns blue once it has centered on a Cohort's base.)

The following command icons are available:

PATROL sets a path for a Cohort to follow. Select a Cohort, then click on any two locations in the province; the Cohort will move between those two points. A Cohort on patrol will defend its terrain from invasion, and will detour to intercept a nearby barbarian army. If a patrolling army breaks its patrol route to intercept

an army, three results may occur. If it wins, it will return its patrol route. If it loses, its empty battle standard will return to base to be slowly resupplied with men. If it retreats from battle, the Cohort will stop patrolling and await further orders.

Note: *Cohorts (and armies) are blocked by rocky terrain and forests; if your patrol route crosses through this terrain, the Cohort will try to move around the obstruction.*

ATTACK sends a Cohort to assault a barbarian army. Click on a Cohort, then click on the barbarians, and the Cohort will cross the countryside to engage in battle. After winning or retreating from an attack, an attacking army will stand still to await further orders. A losing Cohort will return to base to be slowly resupplied with men.

Note: *If your Cohort seems to have trouble attacking an army, make sure that there is no obstructing terrain in the way; forest and rocky land act as natural defensive barriers, and block Cohorts and armies both.*

GO HOME sends a Cohort back to its fort.

BATTLE SCREEN

When a Cohort and a barbarian army meet on the Provincial Level, a battle will occur. Battles occur in rounds, with you (as leader) deciding the tactics used by your troops. Results of the battle are displayed at the end of every round, and are measured in terms of **men** remaining. It sometimes takes a few rounds before the battle is resolved.

The Battle Screen consists of the following components:

DISPLAY WINDOW — indicates the two sides of the battle. The title below the Roman warrior on the left indicates which Cohort is engaging the enemy; the title below the barbarian on the right tells which race you are attacking.

STATUS BARS — Against the right edge of the screen are a pair of bar graphs. The graphs measure the number of **men** on either side; the *battle standards* above each graph indicate which Cohort or Army the graph reflects. Note that the graph for the Cohort adds together its numbers of Regulars, Irregulars and Auxiliaries into one overall statistic. Each graph represents both the initial (black) and current statistics (yellow) for the battle. For convenience's sake, the number of men for each side is listed below the bar.

STATUS DISPLAY — This lists your Cohort's morale, and the initial and current numbers of Regulars, Irregulars and Auxiliaries in the Cohort.

ATTACK ICONS — These four icons represent your options in leading your troops: **Tortoise**, **Assault**, **Flank** and **Charge**. These four commands are explained below.

RETREAT ICON — This icon can be used to retreat from an engagement. Retreat lowers your Cohort's morale; you will be asked to confirm your action before retreating.

TEXT PANEL — In between rounds of battle, a text window will appear over the icons to tell you how the battle is going. This window will also inform you of your final victory or defeat.

USING COHORT 2 — **Caesar** can link together with Impressions' Roman battle game, **Cohort 2**, allowing you to fully realize each battle with a miniatures-based combat gaming system. If you have installed Cohort 2, and wish to use it to play a given battle, just left-click on the information panel along the bottom of the

screen, and the game will load in automatically. (*For full instructions on using Cohort 2 with Caesar, see the documentation included with that program. An order form for purchasing it is included with this game.)*

USING THE BATTLE SCREEN

If you are not using Cohort 2 to enact a battle, then click the mouse on the upper portion of the screen. The icons will appear at the bottom of the display and you can choose your first tactic.

TACTICS — For each round of battle, you must choose a tactic for your Cohort to follow. The usefulness of a tactic depends on three things: the relative sizes of the forces, the composition of your Cohort, which of the sixteen types of barbarians you are facing, and your Cohort's morale.

Note: *If you find yourself losing a lot of battles, you might consider upgrading the quality of your forces. See the chapter on* ***The Forum*** *for instructions on using the Military Advisor and the Tribune of the Plebs in that regard.*

The four battle commands, from left to right on the screen, are:

TORTOISE	A close knit, defensive formation
ASSAULT	A standard frontal attack
FLANK	An attempt to encircle the enemy
CHARGE	An all out attack

RETREAT — There is a fifth icon, to the right of all the others — the Retreat icon. You can retreat from a battle at any time; this saves your Cohort's men, but lowers morale.

THE FORUM

At any time during the game, the large "F" icon on the main City level and Provincial level toolbars will take you to the forum — the administrative center of your city. From here you keep watch on many aspects of your growing province, getting information from and giving orders to your main advisors and assistants.

The first screen you will see is of the forum itself, where your seven advisors wait

to assist you. To deal with any one of these men, just click directly on him. A screen with his reports and commands will then appear. Each of the six advisor's capabilities are described in detail below.

THE POLITICAL ADVISOR. Appearance: Blue-cloaked man. He helps you monitor your position as a politician in the Roman Empire. Most of the commands here relate only indirectly to the city at hand, but more towards your well-being as a ruler in general. The Political Advisor has the following commands:

- **Rename your Governor** — Select the button next to your Governor's name, and the Change Name panel will appear; either click on the up and down arrows to change the letters in your name, or type in a new name with the keyboard. The cursor (a small line under one of the letters) can be moved by either using the left and right arrow keys, or by clicking the mouse on one of the letters. Simple text editing can be done with the Backspace and Delete keys. Click anywhere with the right button to exit the panel.
- **View your location in the Empire** — Select the button next to the name of the province you rule, and the Political advisor will display a map of the Empire. The standard facing you stands above your current province, and standards facing away represent provinces you have previously ruled. Click with the right mouse button to exit the screen.
- **View your political standing** — Your current title (starting with Decurian) is displayed on this screen. Clicking on the button next to this title brings up a panel with the minimum ratings needed to be promoted to the next highest title. Click with the right mouse button to exit the panel.
- **View your Imperial Favor** — Your Imperial Favor is the measure of how you are viewed by the Emperor; it is a numerical rating that increases as you rise in political status. This rating increases when you have been promoted, and when you are currently successful.
- **View/alter salary drawn** — Your current salary is displayed next to two arrow buttons. Click on the button next to your salary, then use the arrow buttons to raise or lower your salary. Right-click to confirm the change.
- **Donate personal savings to city** — The salary that you save over the years is displayed on this panel. If your city is desperately short on funds, you may want to transfer some of those savings back into the city's coffers. Select the button marked "Donate money to city", and use the arrow buttons to set the amount you wish to transfer. Right-clicking confirms the transaction.
- **Note:** *The Amount due for the annual tribute is not found here; it is listed (at its value for the previous year) on the Treasurer's screen — see below.*

THE MILITARY ADVISOR. Appearance: Red-uniformed soldier. He is in charge of the various Cohorts that patrol your province. Through him, you can control all aspects of the army except for the creation and control of individual Cohorts. The Military Advisor has the following commands:

- **Inspect Cohorts** — The window at the top of the screen displays a variety of information about one of your Cohorts. The legion number at the very top of the screen is determined by which province you currently control. Below that you will see the fluttering banner of one of your Cohort's battle standards. To the right of the standard, you should see the current **orders** of the unit, its **morale**, and its **composition** in Centuries of Regulars, Irregulars and Auxiliaries. Use the **arrow buttons** further to the right to step through the different Cohorts you control.

  The very large numbers in the center of the screen tell you the total number of regular, irregular and auxiliary Centuries **in your entire Legion**. The numbers in brackets are the amounts you had **last year**, so you can see if your army is growing or shrinking. **Note:** Some of your Centuries may be en route to join a unit, and as such would not currently appear in any Cohort (see below).

- **Mobilize/demobilize Cohorts** — Your army has the same number of soldiers in it, regardless of how many Cohorts you have. So if you find

THE FORUM

your Cohorts are no match for barbarian armies, and are unwilling or unable to pay for more soldiers, you can demobilize a Cohort to increase the size of the remaining ones. Note that it will take some time for the men to be reassigned and redistributed; only one Century of each kind of warrior may be added to a Cohort in a year. Click on the button between the arrow buttons in the top-right corner of the screen to toggle the Cohort on display between mobilized and demobilized.

- **Alter army wages/conscription** — You start off with only one Cohort — the Prima Cohors — which has only one Century of Regulars. Obviously, you will want to increase your defensive capability. You can set up new Cohorts (see **Forts** in the chapter titled **Provincial Level**), but this only splits up the men you already have. What you want is to add to the number of soldiers in your Legion; there are three ways of going about this.

  The first way is to increase your **wages bill**. This will get more Regulars (professional soldiers) to join up, but you are spending more on salaries, recruitment, basic needs and equipment. (The Wages bill measures Denarii spent per year) The second way is to increase the rate of **conscription**, which drafts more Irregulars (reasonably proficient fighters) into the Legion; however, your citizens don't like being "drafted," and a high conscription rate may provoke unrest. The third method available, putting more **plebs** on army duty, is covered under Tribune of the Plebs, below.

  To alter your army wages, use the arrows next to the Wages Bill displayed at the bottom of the screen. Below that, you can change the rate of conscription using its set of arrows.

Note: *New recruits will not appear immediately after you use these commands. Rather, a steady flow of new applicants will be attracted to the job over the next few years. You will not need to assign these men to particular Cohorts - they will be spread throughout all of the Cohorts you have as evenly as possible.*

THE FINANCIAL ANALYST *Appearance: Man with blue robe.* He displays four graphs that cover areas of finance for the past fourteen years. The years covered by the graphs are displayed at the top of the screen. Note that the graphs display no specific numerical information; they instead act as visual representations of the financial growth of your city and province. Watch them for upward or downward trends in your economy, and plan accordingly. The four graphs are:

- **Population Tax** — measures tax revenues gained from your citizens.

- **Industry Tax** — Measures tax revenues gained from business.
- **City Funds** — This graphs your Available Funds (seen on every toolbar), as they stood at each year. Construction jobs (like major expansions of the capital city or creation of great walls) will be visible here as sharp, sudden drops in City Funds.
- **Population** — Measures the population of your capital city. This is a good sign of how well your city is growing.

THE TREASURER *Appearance: Orange-robed man.* He offers more specific financial information than the Financial Analyst, but only for the current year. His report offers many insights into how your city is doing financially; studying it carefully may suggest new strategies for improvement. The features of the Treasurer are:

- **View/alter tax rates** — The two tax rates, **population** and **industrial tax** rates, are the first things on the Treasurer's report. These can be altered with the arrow buttons next to them. Raising taxes can boost your city's income; but high population tax rates cause unrest and drive away citizens, and high industrial taxes lower business output.

- **View population** — The true measure of "city size" is in the number of people living in it. Population is based on two things: the number of squares devoted to housing, and the quality of that housing. The more housing you have, the higher your population; and higher quality housing has a higher population density than lower quality housing. A high population will bring you greater population taxes, and increased Prosperity.

- **View tax gained per head** — This figure measures the average population taxes collected per head. Experience will tell you what are good trends in tax gained per head; if this figure seems low, your housing may be of poor quality or your people may be living beyond the reach of your prefectures or fora.

- **View income and cost summaries for previous year** — Here, you can see where your money is coming from and going to. Income has two categories: population tax and industrial tax; costs include construction work, operating costs and the tribute to Rome.

  Population tax revenue depends on the number and quality of houses in your city; more houses obviously hold more people to tax, and higher housing quality has a higher population density, garnering more taxes for that square of housing. **Industrial tax** revenue depends on the number of workshops established, and how well they are doing. Both types of

tax revenue depend on the administration's ability to collect them; in other words, that there are fora and prefectures covering the city.

Construction Work costs are the same as are deducted from the Available Funds display each time you build a structure. **Operating costs** are the total of three things: pleb welfare expenditure, army wages bill and Governor's salary. The **Annual tribute** is set by the Emperor, and increases over the years; it is dangerous to upset the Emperor by missing an Annual Tribute (see **Strategies for Success - Politics**).

Graph yearly profit/loss over seventeen years — The bar chart running along the left side of the screen reflects the annual profit/loss for the past seventeen years.

THE ADMINISTRATIVE ADVISOR *Appearance: White-robed & -hooded man.* He is the touchstone to your overall performance as Governor. He gathers all of the information available about both the city and province, analyzes it, and then rates you in four categories. He is a vital resource, as his ratings are the same ones that determine if you are promoted in the ranks of the Roman Empire. His abilities are:

- **Rate performance in four categories** — The Administrative Advisor displays a report on your performance, in the form of four pillars. Each pillar represents your rating in four categories:

  Peace — the degree of security your people enjoy
  Culture — the public and cultural amenities available to citizens
  Prosperity — the wealth you have brought your province
  Empire — the communications and transport network in the region

  Each rating is displayed in two ways: the height of the pillar, and the percentage rating below it. The greater your success, the higher your pillar will be.

  Below all four pillars is an **overall** rating of your performance; this is derived by averaging your ratings in the four categories. Your promotion will depend on both your overall ratings and the four individual ratings. See the **Political Advisor** for the required minimum ratings to be promoted.

- **Offer suggestions to increase ratings** — Click on the base of any of the four pillars in the advisor's report, and he will offer a suggestion on how to increase that rating. Click again, and he will offer more advice if he thinks you need it.

THE INDUSTRIAL ADVISOR *Appearance: Green-robed man w/scrolls.* He watches over your businesses, and measures their output. He sees which types of goods will do best in your province, and how much room your business has for expansion. Look to him when deciding what kinds of industries to develop, and when to develop them.

- **View industry report for your province** — The industrial advisor provides you with a report for all industries in your province. For each of the eight possible industries, the advisor tells you the suitability of your province to producing that good (from "Terrible" to "Excellent"), and the number of workshops devoted to that industry at the moment. This is a good way of seeing which types of goods are ripe for exploitation, and which are over-developed.

- **View Overall Industrial Rating and Prospects for Expansion** — These two ratings, measured from "Terrible" to "Excellent", give general ratings for the entire province. The **Overall Industrial Rating** measures the numbers of workshops you have created in your city, giving added weight to successful workshops. **Prospects for Expansion** looks at the number of workshops created thus far, in relation to the population of the city; this shows the potential for more workshops to be built.

THE TRIBUNE OF THE PLEBS *Appearance: Man in white tunic.* He is the administrator of your Plebian work groups. Plebians (or "Plebs") are not drawn from your population, but are low-class workers that are gathered from the outlying lands of the province. Plebs provide the workforce for most city building and maintenance activities; your province cannot exist without them. The commands available from the Tribune of the Plebs are:

- **View/alter pleb welfare expenditure** — Although unpaid, plebs must be cared for. The more you spend on this, the more the pleb population will grow over the years. (These increases are not instantaneous, but appear over time.) The amount of Denarii spent on pleb welfare is displayed towards the top of the screen; use the arrow buttons next to it to alter how much you wish to pay.

- **View pleb population** — The top two figures are a measure of your pleb population; as it is currently, and as it was the year before. The two figures allow you to see how increases in pleb welfare expenditure have paid off in increased manpower. Pleb population is measured in terms of *pleb groups*; a pleb group is a team of plebs that is assigned to one task at a time.

- **Assign plebs to tasks** — Pleb groups can be assigned to any of seven tasks: construction work, fire prevention, building upkeep, road maintenance, province duty, army duty, and *none*. For each task, two figures are displayed: the **current** number of groups assigned to it, and the **minimum** number needed to cover that task for the entire city (The one exception is the Army category — see below). If you do not assign enough groups for a task, you may not be able to build, or you will find parts of your city slipping into decay.

  To change the number of groups working in an area, click on the two arrow icons next to the number itself. Note that the jobs are ranked in order of importance; if you try to allocate more plebs to an area than you have, the computer will automatically take them from less vital categories.

  The seven tasks are:

  Construction Work: Construction is so important it works differently from everything else. The computer will automatically draw enough plebs from the pool to fulfill construction needs. If there aren't enough groups to cover construction, you will not be able to build anything.

  Fire Prevention, Building Upkeep, Road Maintenance and Province Duty: Unfortunately, the things you build won't automatically last forever. As well as barbarians and rioters, your creations are threatened by natural disasters such as fires, and the effects of the passage of time. Fortunately, you can assign groups to do work which will reduce these dangers. Otherwise, you will have to manually rebuild cases of decay in your city: **fires** will have to be put out with the Clear area command before they spread; **rubble** will have to be cleared as well before new structures can be built; and **breaks in the road system** will have to be rebuilt. **Note:** City walls do not need to be maintained. However, great walls are so large that they inevitably decay; they decay more quickly if there are no plebs assigned to maintain the Province.

  Army Duty: If you ask your Tribune of the Plebs to put more pleb groups on army duty, they will be organized into Centuries (groups of 100 men) of Auxiliaries and assigned to various Cohorts. A Century can be made up of *sixteen* pleb groups, and no less; any extra groups are considered wasted. The first figure here measures the number of the groups assigned to army duty; the second figure counts the number of Centuries of Auxiliaries you have formed. (For more information, see the Military Advisor.)

  Unused Plebs: Leaving some pleb groups with no work to do is basically wasteful; on the other hand, it leaves you prepared to cover the increased maintenance that comes when your city expands.

MAPS PANEL

Available from the City Level toolbar, the Maps Panel displays information about your city through several maps. The maps panel shows the entire city area at once; clicking on the buttons for each map title will display information pertaining to the entire city area, allowing you to trace trouble spots directly to their sources.

Several aspects of the city are rated with a series of colored patches; the colors change from map to map, but they all measure the presence, amount or intensity of the map's topic. These colors are superimposed over the terrain of the city. Colors used for each map are explained in the descriptions that follow, and in **color bars** that are displayed with each map.

At any time while using the maps panel, you may click on a location on the map with the left mouse button, and that portion of the map will be magnified. Left-click again, and the city level will appear, showing the buildings and structures in that area. Left-clicking toggles between these two displays; right-click to return to the Maps panel.

Right-click at any time to exit the Maps panel.

The maps available, and their descriptions and functions, are:

- *URBANIZATION* — This map shows the overall layout of the city. To help you locate areas highlighted by other maps, this option may be turned on at any time, superimposing the city layout over another map. This feature works for all maps but **land value**. **Colors:** Buildings and structures are represented by **black** squares.

- *WATER DISTRIBUTION* — This map shows what parts of your city are being supplied with water. This is a good way of checking for gaps in your network of wells, reservoirs and fountains. **Colors:** Areas supplied with water are shown as **blue**.

- *ADMINISTRATION* — This map shows the tax-collecting and policing influence of your prefectures and fora. If your tax revenues are low or your citizens are rioting, check here for areas not currently covered. **Colors:** Areas under administrative control show as **orange** on this map.

- *ROAD LAYOUT* — This map shows where you have built roads in your city. It is a good way to check for areas not adequately connected

to the road network. **Colors:** Roads appear as **tan** lines.

- *LAND VALUE* — This map shows the value of your city property. Some structures can raise land values, while others lower it. Land value is important, because it marks the "ceiling" above which buildings and structures can evolve or develop. **Colors:** Areas with low value are **purple**, areas with high values are **red**, and areas with negative values are **blue**.

- *TROUBLE AREAS* — This map shows areas of your city where unrest may be forming. **Colors:** Trouble spots appear in a scale from **purple** (little unrest) to **red** (much unrest), and average or undeveloped areas are **black**.

HOW THE MODEL WORKS

With a game as complex as **Caesar**, it would be frustrating to sift through *all* the information one could use to master the game. Therefore, we have split this chapter into the following sections:

- **The Four Ratings**
  - Prosperity
  - Culture
  - Empire
- **Peace**
- **Land Values**
- **Water**
- **Roads, Plazas and Highways**
- **Plebians**
- **How it all Fits Together**

The various rules and processes that control city development are, each taken separately, relatively easy to understand. It's the interaction of these rules with your design decisions that makes **Caesar** complex, sometimes overwhelmingly so. Experience will show you how the explanations given in this manual translate into effects on *your* city design and teach you how to interpret them into game-winning strategies.

WARNING!!

If you are looking for a master plan for designing the perfect city, you're not going to find it here. Much of the fun of **Caesar** is in experimenting with new design ideas, and learning from your successes and failures. If you need a master plan, try this:

1. Play the game a while. Follow the tutorial carefully to get your province running, then attempt to expand on it.
2. When things seem to go wrong (or right) for no good reason, look to the manual to explain the structures, reports and concepts involved.
3. Change things, and see what happens.
4. Repeat steps **2** and **3**. Have fun!

THE FOUR RATINGS

The four ratings kept by your Administrative Advisor should play a central role in your strategy, for two reasons. The first is that they give the best overall sense of your performance as Governor; the second (and more important reason) is that these ratings determine if and when you get promoted to a higher title. The next four sections cover each rating individually, along with those aspects of the game that influence them.

PROSPERITY

The Prosperity rating is based on your city's population, tax collected per head, and profits. Each year these factors cause increases or decreases to the current Prosperity rating. High population will raise your Prosperity each year; low population will lower it. The same is true for tax collected per head: collecting more from each person implies that they have more to give, and thus raises Prosperity. There is also a slight boost to prosperity after every year in which the province has earned profits.

These increases and decreases are cumulative from year to year. However, Prosperity can only rise to a limit based on your population; for example, with a

population between 1200 and 2400, Prosperity cannot rise above **forty**. The many factors that affect Prosperity either directly or indirectly are explained in more detail below:

TAXES — There are two tax rates in Caesar: **population tax** and **industrial tax**. You set taxes as a percentage of the relevant income — citizens' income and workshops' income, respectively. Citizens' income is based on the number of houses in your city, with each house weighted by its type (high-grade housing is wealthy housing). Workshops' income is measured by the number of jars shown in the front of each workshop.

The statistic "tax per head" equals population taxes collected, divided by the population of the city. A high tax per head is good for the province, as it creates more income to use for expansion. To increase tax per head in the long run, work to increase the quality of housing; better houses are owned by people with more money to tax. On the other hand, tax per head can be raised in the short run by increasing your population tax rate. While this can create more income, it also creates unrest and the potential for riots.

In addition to causing unrest, high population taxes lower your city's *growth rate*. This can lead your citizens to "pack up" and leave the city (see the section on **Land Value**, later in this guide, for more information). In this case, the increase in tax per head ends up being less valuable or worthless, since there are fewer heads to tax. Similarly, high industrial tax rates will discourage your workshops from producing; industrial output will decline, lowering industrial tax income with it.

INDUSTRIES — In a functioning business, a **heavy industrial** plant makes raw materials; a nearby **workshop** uses the raw materials to produce one of eight kinds of goods; then these goods are sold to **markets** to meet the demands of the province. The output of an industry (all businesses producing the same kind of goods) is measured by the number of goods sold from its workshops, and can be seen by the number of jars in front of each workshop. In order to boost your income from industry, you must find ways to increase both output and demand. The following items each affect either demand or output, and are listed in order of importance:

Tax:	While a low industrial tax does little to boost their output, overtaxing businesses goes a long way towards shutting them down.
Demand:	The larger your population, the more people there are to sell to.
Towns:	Building a road between the capital and a provincial town adds to demand; the larger the town, the greater the increase.

Workforce:	Without workers living nearby, output is curtailed.
Markets:	A market, either near a workshop or near a road that leads to one, is the primary way a workshop can sell its goods.
Suitability:	The Industrial Advisor knows how well each industry will do in your province.
Limit:	A province can only support so many workshops in any particular industry.
Highway:	Building an Imperial highway brings in some additional demand from outside the Empire.
Heavy Industry:	Raw materials produced outside of the workshop will make its job easier.

ANNUAL (IMPERIAL) TRIBUTE — The annual tribute to Rome is included as a Cost on the Treasurer's records. The amount you pay in tribute begins at fifty Denarii, and increases by one Denarii after every year you rule.

OTHER COSTS — Construction Work and Operating Costs are the other costs listed on your Treasurer's records. Construction work is the sum of construction costs for everything you've built in a year; Operating Costs are the sum of: Governor's salary, Army Wages and Pleb Welfare Expenditure. As you can see, all of these costs are defined solely by your actions and decisions. To make a profit, you must make sure that these costs, plus the annual tribute, are less than your income from taxes.

EMPLOYMENT — Without jobs, your city's *growth rate* diminishes; this causes housing to fold and your population to decrease. In order to make your city grow, you have to make jobs available for your citizens. Industry tends to be the predominant source of employment; each workshop hires many people to produce its goods. Citizens also work in your fora, although a forum employs only a few workers. Finally, being conscripted into the army is a form of employment; up to fifty percent of the population can be "assigned" a job in this way.

POPULATION — The size of your city isn't measured in terms of numbers of buildings or distances covered; but rather in terms of how many people live there. Population is based on the number of housing squares in the City, and modified by the type of housing in each square. In general, as housing evolves, its population density increases, though the fanciest houses actually have a slight drop in density. Sometime when a house evolves, it will expand into previously empty land; this increases the number of housing squares available, and thus boosts your population even further. Therefore, the way to increase your population is to increase the number and quality of your houses.

HOUSING — To make your housing evolve, you must do two things: first, you must fulfill the needs and desires of the people living in it; and second, you must create high land values that won't limit its evolution.

Your citizens need, or in some cases just want, the following items to be available from their houses. Listed in order of importance they are: water supply, road access to a forum, nearby baths, nearby markets, nearby schools or hospitals, and sources of entertainment. Workshops do **not** affect housing's evolution; the workshop benefits from the housing's presence, not the other way around.

Land Value limits the evolution of housing, as well as temples and baths. With low land values, your housing will not evolve into the fancier grades of housing, and may even *devolve* into tents and disappear. It is discussed in detail in a later section of this guide.

GROWTH RATE — **Caesar** maintains an index of your city's growth rate, based on unemployment and population tax rates. This directly affects land values of your housing, which in turn limit how much your housing can evolve. For an explanation of how growth rate and land value affect housing, see **Land Value**, below.

CULTURE

Building religious sights (temples and oracles), places of entertainment (theaters, coliseums and hippodromes), and schools and hospitals are the three sources of Culture. The number of religious sights, sources of entertainment and schools and hospitals required to increase your Culture rating depends on your city's population; as you gain more citizens, you'll need to build more of these sights to satisfy them. And like Prosperity, your Culture rating is also *limited* by your population; the greater your population, the higher your rating can go.

Culture is perhaps the easiest rating to know how to increase; while buildings which contribute to Culture are often expensive, they are equally effective regardless of environment. However, "effective" here only refers to how much these buildings affect Culture — all of the relevant buildings have beneficial effects on housing and land values, but only when their locations are chosen with care. Note: while *temples* need a particular environment to prosper (namely high land values and an adequate population), their success does not increase their effect on Culture.

EMPIRE

The Empire rating depends on your network of provincial roads and highways. Each village that is connected to your capital city by a road will increase your Empire rating; the amount it increases it by depends on the size of the newly connected village, which grows the longer it remains connected. Also, your Empire rating is penalized if these provincial roads are built with a lot of curves and corners; the straighter the roads the better. Finally, your Empire rating goes up when you have connected your city to lands outside the Empire (this connection is symbolic) with an Imperial Highway.

Developing your province, and hence improving your Empire rating, can be a tremendous drain on your resources. You must pay much more for Provincial Roads, Imperial Highways and Forts than you do for their counterparts on city level. And you must assign pleb groups to maintain the provincial roads, and recruit more soldiers to fill out the new Cohorts. Your best bet is to proceed slowly, while keeping a cautious eye on your Available Funds.

PEACE

Your Peace rating is affected by any violence occurring within City level. It will increase slightly for each year where no such trouble has occurred; if enough years pass without incident, the rating may rise all the way to 100%. Your Peace rating drops for each citizen that riots, and even more for each individual barbarian that appears on the City level. The many issues that affect the Peace rating, either directly or indirectly, are discussed below.

COMBAT (Cohorts and Armies) — One way to keep barbarians out of the city is to attack them with your Cohorts. Combat results between a Cohort and a barbarian army are calculated for every round of combat (a round occurs whenever you give a new command). Each round may result in losses to one side or the other (measured in Centuries of men); in some cases, a close round of battle might end in a draw. Combat results are influenced by a variety of factors. A Cohort with high **morale** upon entering a battle will fight harder for its Province; Cohorts with low morale will be less effective. The relative **sizes** of the two forces are important, as the larger force has an obvious advantage. Also important is the **quality** of your Cohort's men; Regulars are more effective than Irregulars, which are themselves more effective than Auxiliaries. Finally, you can also learn to use a barbarian army's racial traits to your advantage (see **Barbarian Races**, below).

A battle can end in three ways. You **win** when all barbarian Centuries have been killed; this raises your Cohort's morale, and returns it to its assigned Patrol route

(if it had one). You **lose** when all Centuries in the Cohort have been killed; the Cohort's battle standard returns to the fort, so that men from other Cohorts can fill it. Losing lowers the Cohort's Morale sharply; the new soldiers will know they've joined a "bad luck" Cohort! Finally, you can **retreat** from a battle at any time; this saves your men, but lowers the Cohort's morale. The enemy may retreat if you have devastated their forces without eliminating them completely.

PREFECTURES — Prefectures will help prevent riots *before* they start; they act like police stations, keeping citizens calm within their area of effect. However, they are only so effective; if their lot in life is bad enough, your citizens will still riot.

BARRACKS — The presence of soldiers on patrol acts as a deterrent to rioting. However, the soldiers that barracks produce do not help your Peace rating; if they're intercepting rioters or invading barbarians, then the rating has already dropped. Soldiers only help by stopping the troublemakers before they damage any (or too much!) property.

WALLS AND TOWERS **(Great and City)** — Building Great Walls helps to keep barbarian armies out of the capital city; the use of Great Towers increases their effectiveness. City walls and towers contain the damage that invaders cause; but once the barbarians have appeared at City level, the damage to your Peace rating has been done.

BARBARIAN RACES — Each of the sixteen barbarian races reacts differently to the four Roman battle tactics. Each province is attacked by only one race of barbarians; repeated battles in that province will show you which tactic is most effective against that race.

RIOTS — The chances of a riot in your city depend on the following factors:

Unrest: Citizens are more likely to riot when life is difficult for them; high taxes, unemployment and conscription cause unrest.

Housing: Citizens living in higher-grade housing will have less reason to riot; people living in tents and low-grade housing are more likely to do so.

Peacekeepers: Administration and peacekeepers (fora, barracks and prefectures) will help quiet unrest, but their abilities are limited. People who are angry enough will riot almost anywhere.

Note that the individual soldiers you see walking around do not prevent unrest from occurring or riots from starting; their role is to eliminate riots once they've begun. And while each rioter only has a small effect on your Peace rating, several of them will appear at a time, and the rating can drop significantly.

DEFENDING PROVINCIAL TOWNS — Barbarians consider the small towns of the province to be good targets for pillaging; their great distances from the Capital and closeness to the provincial border will make it difficult (and expensive) to defend them. In order to defend them, be prepared to either spend a lot of Denarii, or increase your army size dramatically.

LAND VALUES

As explained before, houses, temples and baths all evolve when placed in the proper environment. However, this evolution is limited to a ceiling based on the land value where a structure is built. Almost all structures raise land value to some degree, with the following exceptions: walls and towers, wells and reservoirs, simple roads, low-grade housing and rubble. Rubble and some kinds of housing (see below) are the only items on the City Level which will actually lower land value.

All of these increases and decreases are cumulative. For example, if two buildings each increase land value to a degree, then the area where the effects of the two buildings overlap will have an even higher land value. Also, each square of a building adds to this cumulative effect; therefore the change in land values becomes greater the closer you are to a large structure.

HOUSES AND LAND VALUE — Housing affects land values, as you would expect. An area with better housing will boost land values, while lower grade housing will reduce land values. This effect is also adjusted by the growth rate of your city: in a fast-growing city, *all* land values will be higher, since demand is strong; similarly, if your city has a low growth rate, or, worse still, it is actually shrinking, the value of all land will fall.

The *growth rate* itself is affected by the tax rates and unemployment: unemployment and high taxes reduce the growth rate, while full employment and low tax rates attract people to your city — and hence your growth rate is higher.

The result of this is that if the city is doing well, land values for houses in general will increase; this allows houses to evolve into greater structures, and increase your population. If the city suffers from unemployment and overtaxation, houses will shrink, and your population will decrease. Because the status of each house affects its neighbors, high taxes and unemployment can lead your houses to start "killing" each other. As stated earlier, this relationship is further complicated by the effects of other buildings and rubble; housing evolution only occurs when the needs and desires of your residents have been fulfilled (see **Housing**, under **Prosperity**).

LIMITS ON LAND VALUE — Certain buildings and structures will restrict how far land values can rise in their area; while these buildings benefit the city overall (and therefore raise land values in total), your citizens don't particularly want to live near them. Markets, prefectures and gates limit development to relatively high levels. Heavy industry, workshops and barracks create significantly lower limits. When an area is under the effect of two or more different limitations, the lowest limit applies.

WATER

A well-planned water supply is vital to the success of your city. The following information should help you learn how to develop that supply efficiently.

RUNNING OUT OF WATER — You should make sure that buildings that need water have it *at all times*. When a fountain drains and refills repeatedly, its benefits come and go with the water, severely curtailing the development of any affected housing. Fountains run out of water intermittently when too many fountains are connected, in sequence, to the same pipe; pipe length has no effect on water supply. Running a new pipe from a new reservoir, or from a second fountain connected to another pipe, are the only ways to ensure that a struggling fountain gets enough water.

OPTIMIZING WATER SUPPLIES — The first step in optimizing your network of water supplies is realizing that *only houses and baths need water*. Blanketing the entire city with water wastes money in construction costs, and can obstruct valuable real estate with unneeded pipes and wells. Also, while pipe length doesn't limit the effectiveness of a fountain, connecting to the closest river or lake will limit how much land your pipes use up. Finally, fountains are the only water sources that boost land value, making them even more preferable.

ROADS, PLAZAS AND HIGHWAYS

A road system has three functions: it connects people to forums; it joins businesses to markets (though the markets only have to be within **six** squares of a road); and in the form of an intersection or built up as a plaza, it increases local land values. It is *not necessary* to run a road to every building — only between these two pairs of buildings. The citizens that walk on your roads are a sign of activity and connections between the two pairs of buildings.

TRADE ROUTES — Connecting smaller towns to your capital city increases demand for your industries' goods, causing sales (and the resulting industrial taxes) to increase. The towns will visibly expand as your Imperial goods and

influence fill them; this naturally increases your Empire rating. However, building these roads also provides a clear path for barbarian armies to reach your city; your defense strategies should take this into account.

IMPERIAL HIGHWAYS — The Imperial highway system connects your province to lands outside the Empire, increasing your Empire rating and boosting trade. Like provincial roads, it can be used by barbarian armies as a clear path to your City. Plan your defenses accordingly.

PLEBIANS

As Governor, plebians (or "plebs") are a vital resource, providing the workforce that builds, maintains and (to some degree) defends the province. Your **pleb welfare expenditure** is an annual sum spent on the welfare of the lower classes who work for you. The more you spend, the more plebs will want to work for you; changing your expenditure will therefore increase or decrease the pleb workforce over time. You should plan these increases in advance, to avoid running out of workers.

MAINTENANCE — The numbers of pleb groups needed to put out fires and maintain structures in both your city and province are directly calculated from the amount of roads, walls and buildings you have built. Any growth in your city should be matched by an increase in pleb groups in each of the maintenance categories. You may in fact prefer to keep extra pleb groups assigned above these minimums, so that you never suffer from a lack of plebs as your needs grow.

CONSTRUCTION WORK — The Tribune of the Plebs automatically assigns *fifty* pleb groups to handle all construction duties. Having less than fifty makes you unable to build; of course, if you only have fifty pleb groups, then you have no one left to maintain what you construct.

ARMY DUTY — Every sixteen pleb groups assigned to the Army will form one Century of Auxiliaries, which are untrained and unskilled warriors. Anything less than sixteen groups will be ignored; Individual Centuries will be distributed among your Cohorts at the rate of one Century per Cohort per year.

Having Problems? Before You Call...

In order to allow us to help you more effectively, please try to follow the suggestions below before you call for help. This will assist us in finding the answer to your problem as quickly as possible so that you can begin playing and enjoying your new game.

1. *READ AT LEAST THE FIRST FEW CHAPTERS OF YOUR DOS MANUAL.* The more you know about the operating system your machine is running the easier it will be for any technical support to help you solve any problems. You should at least be familiar with how DOS commands work, what disk files and directories are and what utilities are available on your machine for editing text files.

2. *FIND OUT AS MUCH AS POSSIBLE ABOUT HOW YOUR MACHINE IS CONFIGURED.* What version of what brand operating system is running on the machine? (At the command prompt, type "VER" and hit enter to find out what version of DOS is running) What kind of chip is

running your machine? ('486? '386? '286? 8086?) How much memory is in the system? How much conventional memory is free? (Free conventional memory should be above 590k or so) How much hard disk space is free? What kind of video card is in your machine? (SVGA? VGA? EGA? Brand name?) What kind of sound card, if any, is in your system? Do you have a CD-ROM drive? Are you using Stacker, Doublespace or some other kind of disk compression? Are you using QEMM or some other third party memory manager? If Windows 3.1 is installed on the machine, you can run Microsoft Diagnostics to find out some of these things, if you do not already know about them (type "MSD", then hit <enter> at the command prompt). If necessary, call whomever it was that originally configured your system to answer these questions. It's also a good idea to print out your CONFIG.SYS and AUTOEXEC.BAT files (usually in the root directory of C:) and keep the printouts handy.

3. *SET UP THE COMPUTER NEAR THE PHONE WITH THE PROGRAM INSTALLED ON THE HARD DRIVE.* It is very difficult for technical support to troubleshoot a computer problem over the phone without having access to the machine in question while it is running. If this is not an option, list every detail about the occurance of the problem, including all pertinent system configuration information (such as that described in the previous paragraph), and keep this list handy when calling tech support.

4. *DEFRAG YOUR HARD DISK.* Non-contiguous files on a hard disk can sometimes cause strange and mysterious things to occur. While in the game directory, type "CHKDSK *.*", then hit <enter> at the DOS prompt to find out if all the game files are contiguous or not. A hard disk can be *defragmented*, or defragged, by using a disk utility program such as SPEEDISK, which is packaged with Norton Utilities, or DEFRAG, a program included with MS-DOS version 6.0 or above. This reorders disk space, making stored files contiguous. If a hard drive has not been defragged for more than a month, and has been used even moderately, it is likely that many of the files on the disk have become non-contiguous.

5. *CHECK FOR VIRUSES.* Viruses can mess up even the most carefully configured system. Use a memory-resident virus checker (such as VSAFE, a utility that comes with MS-DOS version 6.0 and above) whenever you insert new disks into your machine, and run an anti-virus utility (such as MSAV, another utility that comes with MS-DOS v.6.0 and above) before you call.

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